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The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation

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The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation

A common source of intergenerational conflict between parents and their children is disagreement over career decisions (Leong, Kao, & Lee, 2004; Rogers, Creed, & Praskova, 2016). For example, most young adults from Asian-American families deal with parental disapproval when making career choices, which leads them to seek advice from others, apply strategies to educate their parents, and compromise their desires for parental expectations (Ma, Desai, George, San Filippo, & Varon, 2014). Consistent with this, Rogers et al. (2016) showed that the level of congruence between Australian adolescents and their parents on perceptions of the adolescents' career progress (in relation to career planning, exploration, decision certainty, and labour market knowledge) and level of vocational identity was only modest, suggesting that parents do not have a good perception of their children's career desires and progress, which could account for much adolescent/parent conflict.

Congruence between children and their parents on career aspirations, values, and actions is likely to facilitate career development, while disagreements are likely to impede it (Leung, Hou, Gati, & Li, 2011; Sawitri & Creed, 2015; Sawitri & Creed, 2017). However, testing the relationships between adolescent/parent career goal discrepancies and important career and life variables (e.g., career self-efficacy, career aspirations, and life satisfaction) is difficult as there currently is no scale available to measure the construct. Thus, the aim of this study was to create a reliable and valid scale that can assess discrepancies between individual-set and parent-set career goals. Having such a scale is likely to facilitate research in this area, which will potentially increase our understanding of the role of parents in the career development process of their

children and generate recommendations for improving interventions for young people who are struggling to set and achieve their career goals.

Discrepancies between Individual-Set and Parent-Set Career Goals

Ma et al. (2014) showed that career-related conflict with family for most adolescents begins during the college years, or soon after. Undergraduate students have to deal with a range of developmental tasks during their education. Many of these tasks connect and overlap with one another, and the inability of students to cope with these problems frequently leads to psychological distress (Fouad et al., 2006). One of the main goals of undergraduate students is to be successful in their academic and career pursuits (Pina-Watson, Jimenez, & Ojeda, 2014). Confronted with discrepancies with parents regarding career direction and with how well they are progressing, compared to how well they should be, or are expected to be progressing, young adults are faced with decisions about adjusting their goals, and are faced with the disappointment of managing the many compromises that need to be made (Anderson & Mounts, 2012).

Career goal tensions due to conflict between young peoples' personal career goals and those desired for them by their parents are related to poorer career progress, such as higher career indecision, a more dependent career identity (Ma & Yeh, 2005), and more career decision-making difficulties (Leung et al., 2011). More generally, career-related discrepancies and career goal tensions between young people and their parents are related to a poorer quality parent-child relationship (Onifade, Lee, Mennicke, Holmes, & Harris, 2016; Tang, 2002), especially when the child has to sacrifice personal aspirations/goals to satisfy parental expectations (Yeh & Bedford, 2004). When discrepancies are higher, young people also report poorer well-being (Wang & Heppner, 2002), higher depressive symptoms (Gallagher, 2016), and more delinquent behaviours (Onifade et al., 2016).

Career goals are important for young people for several reasons. First, career goals guide the actual career choice actions (Lent et al., 1994). Several theories such as Locke and Latham's (1990) goal setting theory and Ajzen's (1988) theory of reasoned action have demonstrated the hypothesised link between goals and actions. Previous studies have also demonstrated the role that career goals play in predicting choice actions (Lapan, Shaughnessy, & Boggs, 1996; Lent et al., 2003). Second, career goals formulated in adolescence and emerging adulthood also function as forerunners to actual career choices and success (Schoon & Polek, 2011). The link between young people career goals and future career attainment has been found in previous studies (e.g., Ashby & Schoon, 2010; Schoon & Polek, 2011). Through a complex set of processes and interactions, career goals enhance the opportunities an individual has to acquire an advanced education, which in turn, allows for greater career possibilities in adulthood (Rojewski, 2005). Finally, career goal setting in adolescence and emerging adulthood is a crucial development task in career preparation and vocational identity development (Erikson, 1968). Previous studies indicate that individuals become increasingly realistic and adapted to their career goals over time (e.g., Armstrong & Crombie, 2000), as goals are dynamic structures that need to be redefined over time to fit realities (Brandtstädter & Rothermund, 2002).

Tang (2002) demonstrated that there was a cultural basis for differences in the roles that parents played in career decision-making and support, with, for example, Caucasian-American students being less likely to be influenced by their family on career matters than Asian-American and Chinese college students. Thus, the level of influence that parents have in their children career development and direction is likely to be influenced by cultural factors (Tang, 2002), as well as by the strength of parental expectations, the children's participation, how well parents

make their case, and the children's capacity to state and argue for their own position (Young, Ball, Vallach, Turkel, & Wong, 2003).

In collectivistic cultures particularly, career matters, such as succeeding academically and entering a respected occupation, are seen as important family responsibilities, and not the domain of the individual adolescent alone (Kim & Park, 2006; Lee, Bell, & Watson, 2007; Leong et al., 2004). Thus, there is a need for young people with collectivist values to maintain some level of congruence between their own career desires and expectations and those that their parents have for them (Lee, Hong, & Espelage, 2010). In these situations, parents typically attempt to apply strict control over the career- and academic-related decisions of their children, while at the same time placing less emphasis on their children's psychological condition (Yang & Shin, 2008).

Previous Attempts to Measure Individual-Parent Career-Related Discrepancies

One of the more widely used approaches used in studies on informant discrepancies relies on the computation of difference scores (i.e., subtracting one informant report from the report of another, such as subtracting adolescent scores from those of parents; Nelemas et al., 2016). For example, in the developmental area, Nelemas et al. (2016) used difference scores to assess discrepancies between parent and adolescent perceptions of the parent-adolescent relationship. In the career area, Hou and Leung (2011) compared children's vocational aspirations and their parents' expectations using difference scores based on Holland's (1997) occupational codes. Wang and Benner (2014) asked their student participants to report their own educational expectations and those of their parents, and asked parents to report on their expectations for their children. They then derived difference scores to determine parent-child discrepancies. More recently, Rutherford (2015) measured individual-parent career-related discrepancies using

difference scores by subtracting adolescent educational aspiration scores from those of their parents.

A second method to assess discrepancies is to ask informants about their own aspirations and their perceived aspirations that others have for them. For example, Radhakrishnan and Chan (1997) measured goal importance discrepancies by asking their Indian and USA participants to list and rate the 10 most important goals that they had set for themselves (self-set goals) and the 10 most important goals they perceived their parents had for them (parental goals). They then created discrepancy scores by calculating differences in the perceived importance ratings, and found that USA students, who were less collectivist than the Indian students, rated their own goals to be more important than their parents' goals for them, whereas the Indian students regarded their own and their parents' goals as equally important. Further, they found that personal-parent goal discrepancies were related negatively to subjective well-being in the Indian students, whereas the well-being of the USA youth was related negatively to discrepancies between personal goals and parental approval of these goals. More recently, Gallagher (2016) assessed adolescent-parent college aspiration discrepancies using difference scores based on these self and perceived other ratings. Discrepancies indicated that college students perceived their parents to have higher college aspirations for them than they had for themselves, and that higher perceived discrepancies (i.e., parents expecting more) were related to higher levels of depressive symptoms.

There has been a long debate in the literature related to the putative problems associated with the use of difference scores (Edwards, 1993, 1994), which have been criticised, for example, for being unreliable and for reducing effect size (Edwards, 2001), and more recently, for having low validity (Laird & De Los Reyes, 2013). Despite these warnings, the case for the

use of difference scores has been made (e.g., Gollwitzer, Christ, & Lemmer, 2014; Trafimow, 2015), but the measures remain cumbersome to use and can result in negative individual case scores as well as positive scores.

These criticisms have led many researchers to assess differences directly. Using this approach, informants are asked directly for their perceptions of the difference between their position and the position of a second party ("My parents and I don't agree on what course I should undertake"). Studies using this approach have been carried out in a diverse range of areas, including discrepancies between desired and expected service orientation (Chung & Schneider, 2002), language use and preference (Tannenbaum, 2003), and perceived self and brand "personality" (Jie, Chou, & Chou, 2012).

Previous researchers also have used qualitative approaches to assess discrepancies between adolescents and their parents regarding career development issues. For example, Tang (2002) investigated the relationship between career choice and parental influence among Asian-American, Chinese, and Caucasian-American college students. The students were asked to answer questions about their actual and ideal career choices in addition to their parents' perceived preferences for them, utilizing Holland's (1997) theoretical framework. More recently, Ma et al.'s (2014) qualitative study used a semi-structured interview to explore the individual's own career choice and perceived parental disapproval of the career decision in eight Asian-American young adults, who had previously experienced career-related family conflict.

In the career domain, Sawitri, Creed, and Zimmer-Gembeck (2013) developed a direct measure of the congruence between adolescents and their parents on levels of career exploration, planning, and goal setting, whether adolescents perceive their career-related needs to be met by parents, and whether the parents were satisfied with the progress being achieved (sample item =

"I am interested in the career areas that my parents expect me to enter"). Creed and Hood (2015) developed a 12-item scale to assess the perceived gap between the person's career goal and the progress that was being made to meet that goal, using items such as "I thought I had the ability to get the career I want, but now I am not so sure". These authors found that career goal/progress discrepancy was related negatively to career goal commitment and positively to career distress. Last, Creed and Gagliardi (2015) used a 6-pont scale to assess career compromise, or the perceived discrepancy between set desired and actual career goals (sample item = "To what extent do you feel your current career direction is a compromise on the status you really wanted to have"). They found that compromise to be related positively to career-related distress and related negatively to perceived employability level.

Present Study

In Study 1, we followed classic scale development procedures (cf. DeVellis, 2016) to develop and initially validate a scale to measure discrepancies between individual-set and parent-set career goals. Focus group discussions with first year undergraduate students confirmed the discrepancy domains identified in the literature review that should be incorporated in the scale. We used feedback from four experts on the items to examine their content validity. An item and exploratory factor analysis on one half of the data reduced the initial list of items to 15 and determined the underlying structure. Confirmatory factor analyses on the second half of the data assessed the factor structure. The reliability and initial validity of the final measure were then assessed. In Study 2, confirmatory factor analyses conducted with an Australian sample tested the usefulness of the newly-developed measure on an English-speaking group of students.

Study 1

Phase 1 - Item Development

The aim of this phase was to generate sufficient initial items to allow any poorly functioning items to be discarded later (i.e., generate approx. twice as many as would appear in a final scale; Hinkin, 1998; Kline, 2000). Items were generated after a review of the literature (e.g., Galagher, 2016; Ghosh & Fouad, 2016; Onifade et al., 2016) and conducting four focus groups (conducted by first and third authors; $N = 36$ 1st-year students from a university in Central Java, Indonesia; approx. 9 students per focus group). Conducting focus groups with individuals from the target population enhances content validity of the items and helps validate the underlying domains of the construct (Vogt, King, & King, 2004). Students were asked to talk about their own career goals, their parents' career goals for them, the ways in which their career goals were discrepant from their parents', and how these discrepancies might affect their career progress and well-being. The focus groups were recorded for later reference.

As a result of the literature review and focus groups, we identified three broad domains of discrepancy related to differences in individual and parent perceptions of ability (e.g., to complete requisite education programs), choice (e.g., over the career direction chosen), and enthusiasm (e.g., amount of energy expended on progressing career direction). We then generated 24 positively worded items (i.e., positively worded to reduce response bias; Salazar, 2015), which were written in English, to represent these three domains. All items were then shown to four independent reviewers. These were experts in career and test development were asked to rate the suitability of each item to reflect a particular domain of the construct and to make comment regarding phrasing and readability. After feedback from the experts, some item wording was adjusted and all items were retained.

We then used a standard forward and backward translation procedure (Jones, Lee, Phillips, Zang, & Jaceldo, 2001) to convert the 24 items into the Indonesian language. The first and the

third authors (Indonesian nationals who also spoke English) translated the items into the Indonesian language, and the items were then blindly back-translated into English by two independent native Indonesian speakers who spoke English. The back-translated versions were compared with the original English version for precision of meaning, and then adjusted when required. Last, the final Indonesian language scale was piloted with three Indonesian undergraduate students to assess readability.

Phase 2 - Item Analysis and Exploratory Factor Analysis

The aim of this phase was to identify items to be retained in the scale using item analysis and exploratory factor analysis.

Method

Participants. We obtained data from 426 first year undergraduate students who were recruited from a state university in Semarang, Central Java, Indonesia. We divided this larger sample into two subsamples using a random split procedure. This procedure created a hold-out sample to be used for cross-validation, which tests how well the original model can be generalised and guards against sample-specific bias and threats to reliability and validity if scale development is based on one sample only (Byrne, 2010).

Sample A contained 231 participants (67.5% young women; mean age 18.45 years, *SD* = .52), who were drawn from economics and business (59.7%) and social science (40.3%) disciplines. This sample was used for item analysis and exploratory factor analyses (Phase 2). Sample B contained 195 students (70.3% young women; mean age 18.37 years, *SD* = .65, from economics and business (52.8%) and social science disciplines (47.2%). Sample B was used for the confirmatory factor analyses in Phase 3. Chi-square and t-test analyses found no differences

between the two samples on any of the demographic variables (age, $p = .65$; gender, $p = .37$; discipline, $p = .06$; GPA, $p = .65$), suggesting no bias as a result of the random split.

Materials

The 24 discrepancy items were administered along with two validity scales, i.e., the Adolescent-Parent Career Congruence Scale and the Career Distress Scale. As the Adolescent-Parent Career Congruence Scale assesses the level of agreement between adolescents and parents regarding career matters, we expected this scale to be associated negatively with the Individual-Parent Career Goal Discrepancies Scale. Career congruence between adolescents and their parents previously has been shown to be associated positively with life satisfaction (Sawitri et al., 2013), whereas lack of fit has been demonstrated to be correlated negatively with well-being (Wang & Heppner, 2002). Thus, we expected discrepancies between individual-set and parent-set career goals to be associated positively with career distress.

Discrepancies between individual and parent-set career goals. This was assessed using the 24 items generated in Phase 1. These items were expected to reflect three domains of individual-parent career goal discrepancies of ability, choice, and enthusiasm. Example items were, "I don't think I can meet the requirements for the career my parents want for me" (ability), "My parents encourage me to pursue a career that I don't really want" (choice), and "I am not seriously trying to achieve the career my parents want for me" (enthusiasm). The students were asked to respond to each item using a Likert-type format, with options that ranged from 1 (*strongly disagree*) to 6 (*strongly agree*). Higher scores indicate greater discrepancy.

Adolescent-parent career congruence. We used the 12-item Adolescent-Parent Career Congruence Scale (Sawitri et al., 2013), which measures perceptions that parents are supportive and satisfied with the student's career-related actions and progress (i.e., complementary

congruence; e.g., "My parents are satisfied with the effort I have put in so far to achieve my career goals"), and perceptions that the student and parents have similar career values, interests, aspirations, and plans (supplementary congruence; e.g., "My parents and I have the same way of defining career success"; 6-point scale of 1 = *strongly disagree* to 6 = *strongly agree*). Higher scores indicate higher levels of career congruence with parents. Cronbach alpha was reported as .89, and validity was supported by finding positive correlations with measures of vertical and horizontal collectivism, self-efficacy, and career aspirations (Sawitri & Creed, 2017).

***Career distress*.** This was assessed using the 9-item Career Distress Scale (Creed, et al., 2016), which taps levels of subjective distress in relation to career decision-making and career goal-setting (e.g., "I often feel down or depressed about selecting a career", and "I feel stress or pressure to select a satisfying career"; 6-point scale of 1 = *strongly disagree* to 6 = *strongly agree*). Higher scores equate to more distress. Previous research has reported high internal reliability (.90), and support for validity by finding positive associations with negative affect and negative associations with positive affect (Creed et al., 2016).

Procedure

All scales, together with demographic questions (e.g., age, gender, and discipline) were administered to students in class time at campus. The study was conducted with approval from the authors' university ethics committee, and written permission was obtained from the participating university departments and all students in the study.

Results

Item analysis. To identify poor functioning items, we examined item skew and kurtosis, the inter-item correlations (where $r \geq .80$, items were marked for deletion), and item-total correlations ($r < .30$), and then assessed if participants responded differently to any items

according to gender, age, and department (Kline, 2000). No items were identified as problematic; therefore, we did not remove any items at this stage.

Exploratory factor analysis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (.92) and Bartlett's test of sphericity ($p < .001$) indicated that the 24 items in Sample A were suitable for factor analysis. We used common factor analysis (EFA; i.e., principal-axis factor analysis), as the common variance is of interest in determining the underlying factor structure (Hair, Black, Babin, & Anderson, 2010). As the three anticipated factors were expected to be correlated domains of an overall individual-parent career goal discrepancies construct, we utilised a direct oblimin rotation (Hair et al., 2010). Following Kahn (2006) and Patil, Singh, Mishra, and Donovan (2008), we used a combination of decision rules to determine the number of factors to be retained: eigenvalues > 1, Velicer's MAP test, parallel analysis (O'Connor, 2000), a minimum of three items per factor (Costello & Osborne, 2005), and interpretability of factors (Hinkin, 1998).

The first EFA produced four factors with eigenvalues > 1, which accounted for 62.95% of variance. However, Velicer's MAP test, the scree plot, and the parallel analysis suggested a 3-factor solution. These three item groupings were interpretable theoretically, therefore, three factors were accepted. Subsequently, nine items were removed from the solution as the factor loadings were < .4 and/or less than twice as strong on the appropriate factor as on another factor (Hinkin, 1998). The final 15 items accounted for 68.58% of the variance: Factor 1 = 46.62%, Factor 2 = 15.49%, and Factor 3 = 6.47%. See Table 1 for factor loadings and eigenvalues.

Factor 1 (5 items; labelled "ability discrepancies") encompasses the situation where individuals perceive that their abilities cannot meet the minimum requirements for achieving parent-set career goals ($\alpha = .85$, $M = 32.77$, $SD = 5.01$). Factor 2 (5 items; "choice

discrepancies") captures the individual's belief that their own career goals are different from the career goals their parents have for them ($\alpha = .84$, $M = 20.89$, $SD = 4.41$). Factor 3 (5 items; "enthusiasm discrepancies") reflects lack of motivation to achieve parent-set career goals. The associations among the three factors (.37, .41, and .69; all $p < .001$) were consistent with the results from the EFA, and indicated that the subscales were somewhat independent, but with overlap among them. Alpha for the full scale was .92.

Insert Table 1 about here

Phase 3 - Confirmatory Factor Analyses

The objective of this phase was to confirm the factor structure of the Individual-Parent Career Goal Discrepancies Scale using Sample B. By means of confirmatory factor analysis (AMOS Version 4.0; Arbuckle & Wothke, 1995), we tested the 3-factor structure identified in Phase 2 (i.e., ability, choice, and enthusiasm factors), and then compared this model with a 1-factor model, a hierarchical, 2nd-order model, and a bifactor model (Reise, Bonifay, & Haviland, 2013; van Prooijen & van der Kloot, 2001).

Model fit was examined using the χ^2 statistic, the normed χ^2 (χ^2/df), the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA). A significant χ^2, χ^2/df < 3.0, CFI and TLI values > .95, and RMSEA < .08 indicate acceptable fit when participants < 250 and observed variables were between 12 and 30. We compared the different models using the χ^2-difference test and the Akaike Information Criterion (AIC), where the lower value indicates a better fit (Hair et al., 2010).

The 3-factor model identified in Phase 2 generated adequate fit statistics (see Table 2 for fit statistics for all models). All factor loadings were statistically significant ($p < .001$) and ranged from .85 to .93 (ability), .67 to .87 (choice), and .84 to .95 (enthusiasm). Correlations

among the latent variables ranged from .43 to .59. The 2nd-order model (correlations with 2nd-order factor = .59 to .82) and bifactor model also had satisfactory fit statistics, but the 1-factor model did not. However, the best fitting model was the bifactor model, which was statistically different from the 3-factor model and also had the lowest AIC. The bifactor model was thus accepted as the best fit to the data. The bifactor model included a general latent variable (i.e., dependent on all 15 items) plus the three subscale latent variables identified in Phase 2 (i.e., three uncorrelated factors dependent on their respective five items). This model assumes that each item is an indicator of both a global and subscale dimension, with the results for the global variable representing common sources of variance after controlling for subscale variances, and the subscale variables representing variances after controlling for the global variance (Reise et al., 2013).

Insert Table 2 about here

As our results supported multi-dimensionality of the Individual-Parent Career Goal Discrepancies Scale (i.e., the 3-factor, 2nd-order, and bifactor models all had satisfactory fit statistics; whereas the 1-factor model did not), we examined the bifactor model-based reliability estimates to determine whether the scale would be better interpreted at the global or subscale level. Following Rodriguez et al. (2016a; also see Rodriguez, Reise, & Haviland, 2016b), we used the Bifactor Indices Calculator (Dueber, 2017) to calculate Omega, OmegaH, Relative Omega, and the explained common variance (ECV). Omega, which is the model-based reliability coefficient, was .96 for the general factor, and for the specific factors was .94 (ability), .88 (choice) and .93 (enthusiasm), indicating high reliability for all factors. OmegaH, or the unique variance explained, was .76 for the general factor, and .38, .70, and .11, respectively, for the specific factors. Relative Omega (i.e., the proportion of reliable variance in the multidimensional

composite) was .79 for the general factor, and .41, .79, and .12 for the specific factors. These statistics indicated that the majority of reliable variance was represented best by the general factor. Finally, ECV, or the proportion of common variance explained, was .57 for the general factor, and .15, .23, .05 for the specific factors, suggesting a moderately strong global factor, with much less variance explained by the specific factors. From this we can state that interpretation at the global level will give a more useful measure of discrepancies between individual-set and parent-set career goals, as the global factor accounts for meaningfully more variance.

Phase 4: Construct Validity

The aim of this phase was to evaluate the initial construct validity of the scale by correlating scores from the Individual-Parent Career Goal Discrepancies Scale with scores from measures of adolescent-parent career congruence and career distress. We expected discrepancies to be associated negatively with congruence and positively with distress. These analyses were conducted on Sample B (N = 195). All correlations were statistically significant and in the expected directions, as reported in Table 3. The results indicated that the Individual-Parent Career Goal Discrepancies Scale scores were related to the two other constructs as expected; providing support for construct validity of the measure.

Insert Table 3 about here

Study 2

Method

We administered the newly developed scale to 232 first year university students recruited from one Australian university (75.9% young women; mean age 21.14 years, SD = 6.57), who were drawn from a range of health disciplines. Most students identified as Australian, and there

was a small number of English-speaking international students who also took part in the study. This condition is typical of universities in Australia. Students completed an online questionnaire, for which they received course credit and entry to a AUS$50 shopping voucher draw.

Results

We examined the 15 items individually and found none to be skewed (> 1) or kurtotic (> 3), indicating normal distributions for the items. There were no extreme inter-item correlations (range .23 to .72), and all item-total correlations were acceptable (range .64 to .82). We then examined the same four models as in Study 1: the (a) 3-factor model, (b) 1-factor model, (c) 2nd-order model, and (d) bifactor model. The 3-factor model (factor loading range = .83 to .93 for ability; .67 to .88 for choice, and .84 to .95 for enthusiasm; all $p < .001$), 2nd-order model (correlations with 2nd-order factor = .62 to .87), and bifactor model all demonstrated a satisfactory fit; whereas the 1-factor model showed a poor fit (see Table 2 for fit statistics). The bifactor model was accepted as the best fitting model. The bifactor model-based reliability statistics for this were: Omega (.98 for general factor, and .96, .95 and .95 for the specific factors), OmegaH (.74, .01, .65, and .68), Relative Omega (.76, .01, .69, and .71), and explained common variance (.52, .03, .22, .23). These results were consistent with the factor structure found in the Indonesian sample, again, indicating a moderately strong global factor, with much less variance explained by the specific factors, supporting use of the measure at the global rather than the specific factor level. Cronbach's alpha for the 15 items was .95.

Discussion

We developed and presented initial evidence of validity for a psychometrically sound, 15-item scale to measure discrepancies between individual-set and parent-set career goals. We operationalized individual-parent career goal discrepancies as disparities between parent-set

career goals and their own, self-set career goals, which incorporated discrepancies between the individuals' ability, choice, and enthusiasm and the career goals that their parents had for them. Content validity was supported by a review of the literature, focus groups, pilot testing, and use of expert reviewers. Construct validity was supported by the EFAs and CFAs with the Indonesian sample, which indicated that the new measure reflected the three intercorrelated domains (i.e., ability, choice, and enthusiasm discrepancies), and testing with the Australian sample demonstrated that the scale might be used in Western as well as collectivist cultures. We also provided evidence that the Individual-Parent Career Goal Discrepancies Scale should be interpreted at the full scale level, and that at this level was internally reliable. Additionally, the association with the Adolescent-Parent Career Congruence Scale supported divergent construct validity, and the association with the Career Distress Scale supported convergent validity.

Previous research has demonstrated the importance of career-related discrepancies between young people and their parents (e.g., Leung et al., 2011). The present study provides a comprehensive measure of career discrepancy, which assesses multiple aspects of the individual-parent career goal discrepancies construct. At 15 items, the Individual-Parent Career Goal Discrepancies Scale will be practical and convenient to use when a short scale of important discrepancies between individual-set and parent-set career goals is needed in future research and practice. Extending career discrepancies research using this scale has the potential to add to our understanding of adolescent-parent disagreement/agreement in formulating and achieving career goals. For example, researchers could design research studies and provide a boost for research in this area, which has been hindered by the lack of an adequate scale, and to extend current understanding of the nature of disparities between individual self-set career goals and their parents' set career goals for their children, its antecedents and consequences, and its longitudinal

correlates. The Individual-Parent Career Goal Discrepancies Scale also will be of use to practitioners who work with young people on their career choice issues to optimize their career development. Practitioners can use the scale as a screening tool at an early stage of career counselling, as well as an evaluation instrument after a series of counselling sessions, at the end of a career intervention program, or after goal setting and goal actualisation processes.

Limitations

In the scale development process, we used a sample of first-year university students, which consisted of more young women than young men. Therefore, generalization to other groups of participants needs to be examined by assessing the psychometric properties of the scale on more diverse populations. As we did not test the predictive validity of the scale, future researchers need to investigate the across-time associations between scores on the scale at one point in time and later outcomes. We showed that the scale was unrelated to several demographic variables (e.g., age, gender), suggesting no inherent bias based on these characteristics; however, future studies need to assess for structural invariance on these and other variables to confirm these results.

Conclusion

In conclusion, the present research yielded support for an instrument to measure discrepancies between individual-set and parent-set career goals. Additional studies are needed to extend its nomological network and to examine whether the predictive use of the scale extends beyond its application to first year undergraduate students. We hope our findings contribute to the body of literature on young people's career development and lead to improved career counselling interventions.

References

Ajzen, I. (1988). *Attitudes, personality, and behavior*. Chicago, IL: Dorsey Press.

Anderson, K. L., & Mounts, N. S. (2012). Searching for the self: An identity control theory approach to triggers of occupational exploration. *The Journal of Genetic Psychology, 173*, 90-111. doi:10.1080/00221325.2011.573027

Arbuckle, J. L. & Wothke, W. (1995). *Amos 4.0 user's guide.* Chicago, IL: Small Waters Corporation.

Armstrong, P. I., & Crombie, G. (2000). Compromises in adolescents' occupational aspirations and expectations from grades 8 to 10. *Journal of Vocational Behavior, 56*, 82-98. doi:10.1006/jvbe.1999.1709

Ashby, J. S., & Schoon, I. (2010). Career success: The role of teenage career aspirations, ambition value and gender in predicting adult social status and earnings. *Journal of Vocational Behavior, 77*, 350-360. doi:10.1016/j.jvb.2010.06.006

Brandtstädter, J., & Rothermund, K. (2002). The life-course dynamics of goal pursuit and goal adjustment: A two-process framework. *Developmental Review, 22*, 117-150. doi:10.1006/drev.2001.0539

Byrne, B. (2010). *Structural equation modelling with AMOS: Basic concepts, applications, and programming*. New York, NY: Routledge.

Chung, B. G., & Schneider, B. (2002). Serving multiple masters: Role conflict experienced by service employees. *Journal of Service Marketing, 16*, 70-87.

Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation, 10*, 1-9. Retrieved from http://pareonline.net/pdf/v10n7.pdf

Creed, P. A., & Gagliardi, R-E. (2015). Career compromise, career distress, and perceptions of employability: The moderating roles of social capital and core self-evaluations. *Journal of Career Assessment, 23*, 20-34. doi:10.1177/1069072714523082

Creed, P. A., & Hood., M. H. (2015). The development and initial validation of a scale to assess career goal discrepancies. *Journal of Career Assessment, 23*, 308-317. doi:10.1177/1069072714535175

Creed, P. A., Hood, M. H., Praskova, A., & Makransky, G. (2016). The Career Distress Scale. Using Rasch measurement theory to evaluate a brief measure of career distress. *Journal of Career Assessment, 24*, 732-746. doi:10.1177/1069072715616126

DeVellis, R. F. (2016). *Scale development: Theory and applications* (Vol. 26). Los Angeles, CA: Sage.

Edwards, J. R. (1994). Regression analysis as an alternative to difference scores. *Journal of Management*, *20*, 683-689.

Edwards, J. R. (2001). Ten difference score myths. *Organizational Research Methods*, *4*, 265-287.

Edwards, J. R., & Parry, M. E. (1993). On the use of polynomial regression equations as an alternative to difference scores in organizational research. *Academy of Management Journal*, *36*, 1577-1613.

Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.

Fouad, N. A., Guillen, A., Harris-Hodge, E., Henry, C., Novakovic, A., Terry, S., & Kantamneni, N. (2006). Need, awareness, and use of career services for college students. *Journal of Career Assessment, 14*, 407-420. doi:10.1177/1069072706288928

Gallagher, M. (2016). Adolescent-parent college aspiration discrepancies and changes in depressive symptoms. *Sociological Perspective, 59*, 296-316. doi:10.1177/0731121415589137

Ghosh, A., & Fouad, N. A. (2016). Family influence on careers among Asian parent-child dyads. *Journal of Career Assessment, 24*, 318-332. doi:10.1177/1069072715580417

Gollwitzer, M., Christ, O., & Lemmer, G. (2014). Individual differences make a difference: On the use and the psychometric properties of difference scores in social psychology. *European Journal of Social Psychology*, *44*, 673-682.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. (2010). *Multivariate data analysis. A global perspective.* (7th ed.). New Jersey, NJ: Prentice Hall.

Hinkin, T. R. (1998). A brief tutorial on the development of measures for the use in survey questionnaires. *Organizational Research Methods, 1*, 104-121. doi:10.1177/109442819800100106

Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments*. Odessa, FL: Psychological Assessment Resources.

Hou, Z., & Leung, S. A. (2011). Vocational aspirations of Chinese high school students and their parents' expectations. *Journal of Vocational Behavior, 79*, 349-360. doi:10.1016/j.jvb.2011.05.008

Jie, Y., Chou, T. J., & Chou, N. (2012). Assessing the fit of two brand personality scales in a Chinese context and revisiting the predictive validity of two methods of measuring self-congruity. *Journal of Brand Management*, *19*, 525-540.

Jones, P. S., Lee, J. W., Phillips, L. R., Zhang, X. E., & Jaceldo, K. B. (2001). An adaptation of Brislin's translation model for cross-cultural research. *Nursing Research, 50*, 300-304.

Kahn, J. H. (2006). Factor analysis in counseling psychology research, training, and practice. *The Counseling Psychologist, 34*, 684-718. doi:10.1177/0011000006286347

Kim, U., & Park, Y. (2006). Indigenous psychological analysis of academic achievement in Korea: The influence of self-efficacy, parents, and culture. *International Journal of Psychology, 41*, 287-292. doi:10.1080/00207590544000068

Kline, P. (2000). *The handbook of psychological testing* (2nd ed.). London, UK: Routledge.

Laird, R. D., & De Los Reyes, A. (2013). Testing informant discrepancies as predictors of early adolescent psychopathology: Why difference scores cannot tell you what you want to know and how polynomial regression may. *Journal of Abnormal Child Psychopathology, 41*, 1-14. doi:10.1007/s10802-012-9659-y

Lapan, R. T., Shaughnessy, P., & Boggs, K. (1996). Efficacy expectations and vocational interests as mediators between sex and choice of math/science college majors: A longitudinal study. *Journal of Vocational Behavior, 49*, 277-291. doi: 10.1006/jvbe.1996.0044

Lee, J-M., Bell, N. J., & Watson, W. (2007). Situating alcohol use and delinquency within developmental and societal context: The case of Korean youth. *Journal of Adolescence, 30*, 835-851. doi:10.1016/j.adolescence.2006.09.005.

Lee, S. Y., Hong, J. S., & Espelage, D. L. (2010). An ecological understanding of youth suicide in South Korea. *School Psychology International, 31*, 531-546.

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior, 45*, 79-122. doi:10.1006/jvbe.1994.1027

Lent, R. W., Brown, S. D., Schmidt, J., Brenner, B., Lyons, H., & Treistman, D. (2003). Relation of contextual supports and barriers to choice behavior in engineering majors: Test of alternative social cognitive models. *Journal of Counseling Psychology, 50*, 458-465. doi:10.1037/0022-0167.50.4.458

Leong, F. T. L., Kao, E. M-C., & Lee, S-H. (2004). The relationship between family dynamics and career interests among Chinese Americans and European Americans. *Journal of Career Assessment, 12*, 65-84. doi:10.1177/1069072703257734

Leung, S. A., Hou, Z.-J., Gati, I., & Li, X. (2011). Effects of parental expectations and cultural-values orientation on career decision-making difficulties of Chinese university students. *Journal of Vocational Behavior, 78*, 11-20. doi:10.1016/j.jvb.2010.08.004

Locke, E.A., & Latham, G.P. (1990). *A theory of goal setting and task performance.* Englewood Cliffs, NJ: Prentice Hall.

Ma, P. W., Desai, U., George, L. S., San Filippo, A. A., & Varon, S. (2014). Managing family conflict over career decisions: The experience of Asian Americans. *Journal of Career Development, 41*, 487-506. doi:10.1177/0894845313512898

Ma, P.-W. W., & Yeh, C. J. (2005). Factors influencing the career decision status of Chinese American youths. *Career Development Quarterly, 53,* 337-347. doi:10.1002/j.2161-0045.2005.tb00664.x

Nelemas, S. A., Branje, S. J. T., Hale III, W. W., Goossens, L., Koot, H. M., Oldehinkel, A. J., & Meeus, W. H. J. (2016). *Journal of Youth and Adolescence, 45*, 2049-2063. doi:10.1007/s10964-016-0503-5

O'Connor, B. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, 32*, 396-402. doi:10.3758/bf03200807

Onifade, E., Lee, J., Mennicke, A., Holmes, J. L., & Harris, L. (2016). Predicting delinquent behaviors for Korean youth using the parent-child relationship and career goal tension. *Journal of Ethnicity in Criminal Justice, 14*, 137-155. doi:10.1080/15377938.2015.1126698

Patil, V. H., Singh, S. N., Mishra, S., & Donovan, D. T. (2008). Efficient theory development and factor retention criteria: Abandon the 'eigenvalue greater than one' criterion. *Journal of Business Research, 61*, 162-170. doi:10.1016/j.jbusres.2007.05.008

Pina-Watson, B., Jimenez, N., & Ojeda, L. (2014). Self-construal, career decision self-efficacy, and perceived barriers predict Mexican American women's life satisfaction. *The Career Development Quarterly, 62*, 210–233.

Radhakrishnan, P., & Chan, D. K.-S. (1997). Cultural differences in the relation between self-discrepancy and life satisfaction. *International Journal of Psychology, 32*, 387 - 398.

Reise, S. P., Bonifay, W. E., & Haviland, M. G. (2013). Scoring and modelling psychological measures in the presence of multidimensionality. *Journal of Personality Assessment, 95*, 129-140. doi:10180/00223891.2012.725437

Rogers, M. E., Creed, P. A., & Praskova, A. (2016). Parent and adolescent perceptions of adolescent career development tasks and vocational identity. *Journal of Career Development,* 1-16. doi:10.1177/0894845316667483

Rojewski, J. W. (2005). Career aspirations. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling. Putting theory and research to work.* (pp. 131-154). New Jersey, NJ: John Wiley & Sons.

Rutherford, T. (2015). Emotional well-being and discrepancies between child and parent educational expectations and aspirations in middle and high school. *International Journal of Adolescence and Youth, 20*, 69-85. doi:10.1080/02673843.2013.7677.42

Salazar, M. (2015). The dilemma of combining positive and negative items in scales. *Psicothema*, *27*, 192-199. doi:10.7334/psicothema2014.266

Sawitri, D. R., & Creed, P. A. (2015). Perceived career congruence between adolescents and their parents as a moderator between goal orientation and career aspirations. *Personality and Individual Differences, 81*, 29-34. doi:10.1016/j.paid.2014.12.061

Sawitri, D. R., & Creed, P. A. (2017). Collectivism and perceived congruence with parents as antecedents to career aspirations: A social cognitive perspective. *Journal of Career Development, 44*, 530-543. doi:10.1177/0894845316668576

Sawitri, D. R., Creed, P. A., & Zimmer-Gembeck, M. J. (2013). The Adolescent-Parent Career Congruence Scale: Development and initial validation. *Journal of Career Assessment, 21*, 210-226. doi:10.1177/1069272712466723

Schoon, I., & Polek, E. (2011). Teenage career aspirations and adult career attainment: The role of gender, social background and general cognitive ability. *International Journal of Behavioral Development*, 35, 210-217. doi:10.1177/0165025411398183

Tang, M. (2002). A comparison of Asian American, Caucasian American, and Chinese college students: An initial report. *Journal of Multicultural Counseling and Development*, *30*, 124-134. doi:10.1002/j.2161-1912.2002.tb00484.x

Tannenbaum, M. (2003). The multifaceted aspects of language maintenance: A new measure for its assessment in immigrant families. *International Journal of Bilingual Education and Bilingualism*, *6*, 374-393.

Trafimow, D. (2015). A defense against the alleged unreliability of difference scores. *Cogent Mathematics*, *2*, 1064626.

van Prooijen, J.-W., & van der Kloot, W. A. (2001). Confirmatory analysis of exploratively obtained factor structures. *Educational and Psychological Measurement, 61*, 777-792. doi:10.1177/00131640121971518

Vogt, D. S., King, D. W., & King, L. A. (2004). Focus groups in psychological assessment: Enhancing content validity by consulting members of the target population. *Psychological Assessment, 16*, 231-243. doi:10.1037/1040-3590.16.3.231

Wang, L.-F., & Heppner, P. P. (2002). Assessing the impact of parental expectations and psychological distress on Taiwanese college students. *The Counseling Psychologist, 30*, 582-608. doi:10.1177/00100002030004006

Wang, Y., & Benner, A. D. (2014). Parent-child discrepancies in educational expectations: Differential effects of actual versus perceived discrepancies. *Child Development, 85*, 891-890. doi:10.1111/cdev.12171

Yang, J., & Shin, K. (2008). Vulnerability, resilience, and well-being of intermarriage: An ethnographic approach to Korean women. *Journal of International Women's Studies, 10*, 46-63. Retrieved from http://vc.bridgew.edu/jiws/vo110/iss2/5

Yeh, K. H., & Bedford, O. (2004). Filial belief and parent-child conflict. *International Journal of Psychology, 39*, 132-144.

Young, R. A., Ball, J., Valach, L., Turkel, H., & Wong, Y. S. (2003). The family career development project in Chinese Canadian families. *Journal of Vocational Behavior, 62*, 287-304. doi:10.1016/S0001-8791(02)00022-2

Table 1

Factor Loadings for Discrepancies with Parent-Set Career Goals Scale; Sample A (N = 231)

Items	Factor 1: Ability	Factor 2: Choice	Factor 3: Enthusiasm
1. I don't think I can meet the requirements for the career my parents want for me.	**.93**	-.07	.03
2. I don't think I have what it takes to reach the career my parents think I should pursue.	**.83**	.06	.06
3. I am not as clever as I need to be to reach the career my parents want for me.	**.83**	.02	-.07
4. I am not sure that I have the ability to strive for the career my parents think is ideal for me.	**.82**	.04	-.04
5. I doubt that I am able to reach the career my parents think is best for me.	**.82**	-.03	-.06
6. My parents have a preferred career for me as they disagree with the choice I have made for myself.	-.01	**.93**	.07
7. My parents want me to change my own career choice to the career they really want for me.	-.08	**.82**	-.08
8. My parents insist that the career they want for me is better than my own career choice.	-.03	**.79**	.02
9. My parents believe that my own career choice is not good enough.	.01	**.77**	-.05
10. My parents encourage me to pursue a career that I don't really want.	.11	**.53**	.01
11. I am not motivated to reach the career my parents want me to have.	-.10	.04	**.95**
12. I am not enthusiastic about achieving the career my parents want for me.	.01	-.02	**.88**
13. I am not interested in making an effort towards the career my parents want me to have.	.10	-.02	**.78**
14. I am not seriously trying to achieve the career my parents want for me.	.01	-.03	**.73**
15. I am not working as hard as I could to achieve the career my parents want me to have.	.17	.12	**.63**
Eigenvalues	7.28	2.65	1.25
% variance explained	46.62	15.49	6.47

Note. Main loadings highlighted in bold.

Table 2

Model Fit Indices of the 3-Factor, 1-Factor, 2nd-Order Factor, and Bifactor Models for Study 1 (Sample B; N = 195) and Study 2 (N = 232).

Model	χ^2	*df*	χ^2/df	CFI	TLI	RMSEA	χ^2_{Diff}	AIC
Study 1: Sample B								
3-factor	142.45***	75	1.90	.97	.97	.06	-	232.45
1-factor	1182.13***	90	13.14	.57	.50	.25	$p < .001$	1242,13
2nd order	111.10***	77	1.44	.99	.98	.05	$p < .001$	197.10
Bifactor	70.32***	64	1.10	.99	.98	.02	$p < .001$	182.32
Study 2								
3-factor	172.53***	75	2.27	.98	.97	.07	-	260.54
1-factor	1705.33***	90	18.95	.57	.50	.28	$p < .001$	1765.33
2nd order	178.17***	77	2.31	.97	.96	.07	$p < .001$	264.17
Bifactor	98.84***	64	1.10	.99	.99	.05	$p < .001$	210.84

Note. χ^2_{Diff} statistics refer to differences with 3-factor model. *** $p < .001$

Table 3

Summary Data for Sample B (N = 195; correlations above diagonal) and Australian Sample (N = 232; correlations below diagonal)

	Indonesian				Australian									
Scale	*M*	*SD*	Range	α	*M*	*SD*	Range	α	1	2	3	4	5	6
1. Full scale	34.50	12.62	14-77	.92	38.24	16.45	15-85	.95	-	.85***	.75***	.79***	-.76***	.40**
2. Subscale 1 (Ability discrepancies)	13.64	5.83	5-30	.95	13.31	5.81	5-30	.94	.78***	-	.44**	.55**	-.56**	.49**
3. Subscale 2 (Choice discrepancies)	10.57	5.07	5-30	.88	10.66	6.37	5-30	.95	.86***	.53**	-	.37**	-.62**	.26**
4. Subscale 3 (Enthusiasm discrepancies)	12.66	5.97	5-30	.94	14.27	7.31	5-30	.95	.88***	.51**	.65**	-	-.65**	.17*
5. Adolescent-parent career congruence	54.36	10.15	17-72	.92	-	-	-	-					-	-.30**
6. Career distress	24.90	8.21	9-46	.87	-	-	-	-						-

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

2. Bukti Konfirmasi Review dan Hasil Review Pertama (17 Feb 2019)

Gmail

Dian Sawitri <dian.r.sawitri@gmail.com>

Journal of Career Development - Decision on Manuscript ID JCD-2018-0203

Journal of Career Development <onbehalfof@manuscriptcentral.com> Sun, Feb 17, 2019 at 10:28 AM
Reply-To: JCD@missouri.edu
To: dian.r.sawitri@gmail.com

16-Feb-2019

Dear Dr. Sawitri:

I have now received a blind evaluation of your manuscript from an anonymous reviewer who has considerable expertise in career development research. I have also thoroughly read your manuscript. As you will see, the reviewer highlighted many strengths in your paper, but also cited some limitations that will need to be addressed before it can be accepted for publication. I think that the creation of measure of the discrepancies between students and parents in career goals is a topic that would be of interest to the readers of JCD. I believe that if the concerns raised can be addressed, the study has the potential to make a contribution to the literature on career development. Therefore, I have decided to offer you the opportunity to revise your manuscript and to submit it to JCD for reconsideration. Please pardon the delay in my response to you.

Please understand that this offer to revise and resubmit is not a guarantee that the manuscript will eventually be published. Should you choose to submit a revision, the manuscript would undergo an additional round of evaluation. A decision about whether the revision could be published will depend on how well the issues described in the review, together with those I list below, are successfully addressed in the next version of the manuscript.

1. I think you are on to a good idea and are set to make an important contribution. Understanding the role of the family in career decisions in collectivistic cultures is a topic much talked about but less frequently measured. As the reviewer notes, I think the study could benefit from further developing its rationale and literature review. You probably do not need to have as much as you do about the importance of goals, but I would build up the section on collectivism, families, and career development and how little we know empirically due to our lack of measures.

2. Could you expand (just a little) your explanation of how you are using the term “bi-factor.” It was new to me, and I got it after a while. (I kept thinking your meant “2-factor” at first). My guess is that it may be new to other readers of the journal.

3. I was surprised by the confirmatory factor analysis in an Australian university. I had been thinking about the rationale as the development of an instrument particularly useful for understanding career development in collectivistic cultures. I think of Australia in terms of Anglo/individualistic culture. You may have provided a rationale that I missed. Think carefully about how you want to frame your study, so you don’t loses readers when you pivot from collectivistic to individualistic cultures here. If it is about developing a universal measure, emphasize this more in the literature review..

4. See if you can develop the implications section just a little bit more. The journal has a strong readership of practitioners who will be interested in the practical consequences of your findings. Could you provide a brief example (a couple of sentences) of what an intervention based on the results of your study might look like?

5. I think that the reviewer offers other thoughtful suggestions regarding how the manuscript might be strengthened. I will not belabor them here—but please consider them carefully.

I propose a target date of April 15th for the revision. Please advise me if this presents a problem. Along with the revised manuscript, please include a cover letter describing point-by-point how you have responded to each issue raised in the reviews and in this letter. Please use a paragraph numbering system so that I can easily determine from your cover letter how you have responded to each suggestion. The cover letter should provide a detailed explanation of how the revised manuscript has implemented each of our suggestions, or alternatively, it should provide a cogent rationale for why a specific suggestion was not followed. As noted, the revised manuscript, references, figures, and tables should not exceed 30 pages. If you decide not to resubmit to JCD, I would appreciate notification as soon as you have made that decision so that I can close the file for this manuscript.

Although some of the issues that the reviewer and I identified may pose significant challenges, I encourage you to consider undertaking a revision. If my concerns and those of the reviewers can be successfully addressed, I would like to see this manuscript published in JCD. However, given the number of important questions remaining, I cannot offer any assurances at this point about the likelihood of the manuscript eventually being published. Thank you very much for submitting your work to the Journal of Career Development. If you need clarification about any aspect of this letter, please do not hesitate to contact me.

Sincerely,
Dr. George Gushue, Ph.D.
Journal of Career Development

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2 attachments

JCD-2018-0203-Decision-letter.pdf
79K

JCD-2018-0203-Reviews.pdf
9K

February 15, 2019

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Sincerely,

George V. Gushue
Associate Editor
Journal of Career Development

JCD-2018-0203: The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation

Reviews:

The aim of this study was to create a reliable and valid scale that can assess discrepancies between individual-set and parent-set career goals. Although the manuscript could be potentially interesting for the readership of JCD, there are two several areas of concern. I will lay out my major concerns below, in the hope that the Authors find these comments useful.

The first main concern regards the theoretical model. Specifically, the theoretical model on which the authors based their instrument is missing in introduction. In fact, the authors seem to go through attempts to test the factorial structure of the instrument without having a theoretical model of reference.

The second main concern regards the choice of discrepancy analysis method used (see Previous Attempts to Measure Individual-Parent Career-Related Discrepancies session). The authors in the introductory session should clarify the discrepancy analysis method that they intend to pursue and they should justify their choice.

The third main concern regards the motivation linked to the creation of a new instrument. Specifically, it is not clear what limits related existing instruments the authors hope to overcome with the construction of a new instrument.

3. Bukti Konfirmasi Submit Revisi Pertama, Respon kepada Reviewer, dan Artikel yang Diresubmit (31 Maret 2019)

Gmail **Dian Sawitri <dian.r.sawitri@gmail.com>**

Journal of Career Development - Manuscript ID JCD-2018-0203.R1

Journal of Career Development <onbehalfof@manuscriptcentral.com> Sun, Mar 31, 2019 at 10:24 PM
Reply-To: JCD@missouri.edu
To: dian.r.sawitri@gmail.com, p.creed@griffith.edu.au, mirwan.perdhana@gmail.com

31-Mar-2019

Dear Dr. Sawitri:

Your manuscript entitled "The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation" has been successfully submitted online and will be given full consideration for publication in the Journal of Career Development. The Editor will strive to notify you the disposition of your submission in 12 weeks.

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Thank you for submitting your manuscript to the Journal of Career Development.

Sincerely,

Journal of Career Development Editorial Office

RESPONSE TO REVIEWER
JOURNAL OF CAREER DEVELOPMENT

MANUSCRIPT ID: JCD-2018-0203

Comments from the Associate Editor:

1. I think you are on to a good idea and are set to make an important contribution. Understanding the role of the family in career decisions in collectivistic cultures is a topic much talked about but less frequently measured. As the reviewer notes, I think the study could benefit from further developing its rationale and literature review. You probably do not need to have as much as you do about the importance of goals, but I would build up the section on collectivism, families, and career development and how little we know empirically due to our lack of measures.

Response:

We accepted these suggestions and developed the sections on collectivism, families, and career development, and reduced the focus on goals. Most of the changes were made to the Introduction, although some additional modifications flowed on to other aspects of the paper. We added these sections to the Introduction:

Career Goals and Conflict with Important Others

Career goals are important for young people for several reasons. First, they guide actual career choice actions (Lent et al., 1994). Several theories (e.g., goal setting, Locke & Latham, 1990; reasoned action, Ajzen, 1988) have proposed links between goals and actions, and many studies have demonstrated that career goals play an important role in predicting choice actions (e.g., Lapan, Shaughnessy, & Boggs, 1996; Lent et al., 2003). Second, career goals function as forerunners to actual career choices and later career and life success (Ashby & Schoon, 2010; Schoon & Polek, 2011). Through a complex set of processes and interactions, career goals enhance individual opportunities to acquire an advanced education, which in turn, creates greater career possibilities in adulthood (Rojewski, 2005). Finally, career goal setting is a crucial development task in career preparation and vocational identity development (Erikson, 1968). As goals are dynamic structures that need to be redefined over time to fit and respond to realities (Brandtstädter & Rothermund, 2002), individuals become increasingly career mature, realistic, and adapted to their career goals as they develop (Armstrong & Crombie, 2000).

Ma et al. (2014) showed that, for most adolescents, career-related conflict with family begins during the college years, or soon after. Students deal with a range of developmental tasks during their education. Many of these tasks connect and overlap with one another, and the inability to manage them can lead to psychological distress (Fouad et al., 2006). One of the main goals for young people is to be successful in their academic and career pursuits (Pina-Watson, Jimenez, & Ojeda, 2014). Confronted with discrepancies with parents regarding career direction and with how well they are progressing (vis-à-vis others' expectation), young people are faced with decisions about adjusting their goals, and are faced with the disappointment of managing the many compromises that need to be made (Anderson & Mounts, 2012).

Career Goals, Conflict with Important Others, and Collectivism

According to Triandis (1995), collectivistic individuals view themselves as part of one or more "in-groups" (e.g., family, community, and nation). They emphasise their relationships to members of these in-groups, give priority to in-group goals, and shape their behaviours primarily to meet in-group norms. In contrast, individualists see themselves as independent of, or only loosely linked to, a particular group. They emphasise rational considerations of the costs and benefits of socialising with others, prioritise their personal goals over the goals of others, and direct their behaviours based on their own desires, rights, preferences, and arrangements they have with others.

Every individual has both collectivist and individualist components in their cognitive systems (Triandis, 1995). However, emphases differ depending on the individual's and/or group's cultural heritage. Individuals raised in countries with a collectivist culture (e.g., Indonesia, India) have an augmented set of collectivistic elements and a weakened set of individualist values. In contrast, those who have grown up in individualistic cultural settings (e.g., Australia, USA) tend to have greater individualistic predispositions and weaker collectivistic elements. When facing a situation, the former individuals are more likely to respond using a collectivistic orientation, while the latter tend to respond from an individualist viewpoint, resulting in different social behaviours across settings (Triandis, 1995).

In individualistic cultures, personal agency is located within the individual; whereas in collectivistic contexts, personal agency is located largely in affirmative relationships with significant others, primarily parents (Kitayama & Uchida, 2005). The private selves of collectivists are also much more likely to reflect goals of conformity and obedience to the family or group (Leong, Hardin, & Gupta, 2011). When individuals in collectivist cultures make a career decision, they do so with the interests and values of others in mind as well as their own interests. Satisfying significant others (e.g., parents) is likely to contribute to pleasing and satisfying themselves (Leong et al., 2011).

While people in individualistic cultures are primarily motivated by their own needs, individuals in collectivistic cultures are socialised to be more responsive to their in-group preferences (Oettingen & Zosuls, 2006). They are taught to maintain harmony and to protect important relationships with others by avoiding behaviours that could threaten the connection (Cross, Bacon, & Morris 2000). Therefore, individuals, especially young people, are motivated to fit in and adjust themselves to their significant others' expectations and needs, especially the expectations and needs of parents (Kitayama, Duffy, & Uchida, 2007).

Kim and Markus (1999) demonstrated that individuals from collectivistic backgrounds were more likely to make choices that indicated a preference for conformity; whereas their individualist counterparts preferred choices that represented uniqueness. Likewise, career development studies showed that collectivist adolescents are more willing to follow their parents' wishes, such as selecting careers consistent with their parents' advice rather than ones that represent their own choices (Tang, 2002). As young people are likely to consider the needs and desires of significant others in addition to their own when making important decisions (Cross et al., 2000), ignoring the wishes of parents when formulating career goals is contrary to their sense of self and value system (Hardin et al., 2001).

In collectivistic cultures, the process of fitting in and getting along with significant others builds the individuals' self-esteem and guides them to understand others by taking their perspective (Leong et al., 2011). Young people also are taught to create a social reality that makes their accomplishments noticeable to their collective (Oettingen & Zosuls, 2006). They are more inclined to evaluate their accomplishments by considering how the achievements reflect on important in-group members; for example, whether their academic and career attainments will make their family or parents proud of them (Markus & Kitayama, 1991). Academic success and entering a respected occupation are important family responsibilities, and not the domain of the individual adolescent alone (Kim & Park, 2006). Thus, individuals in collectivist cultures need to consider their parents' support, expectations, emotional consequences, and agreement when setting goals and implementing career actions. Consequently, it is important for them to maintain some level of congruence between their own career aspirations and family expectations, as career goal discrepancies can disrupt their life and relationships with their parents (Lee, Hong, & Espelage, 2010).

Career goal tensions due to conflict between young peoples' personal career goals and those desired for them by their parents are related to poorer career progress, such as higher career indecision, a more dependent career identity (Ma & Yeh, 2005), and more career decision-making difficulties (Leung et al., 2011). More generally, career-related discrepancies and career goal tensions between young people and their parents are related to a poorer quality parent-child relationship (Onifade, Lee, Mennicke, Holmes, & Harris, 2016; Tang, 2002), especially when the child has to sacrifice personal aspirations to satisfy parental expectations (Yeh & Bedford, 2004). Discrepancies also result in poorer well-being (Wang & Heppner, 2002), higher depressive symptoms (Gallagher, 2016), and more delinquent behaviours (Onifade et al., 2016).

2. Could you expand (just a little) your explanation of how you are using the term "bifactor." It was new to me, and I got it after a while. (I kept thinking your meant "2-factor" at first). My guess is that it may be new to other readers of the journal.

Response:
We added these statements on page 15-16:

A bifactor measurement model indicates that for a given set of item responses, relationships among items can be explained by a general factor showing shared variance among all the items and a set of group factors where variance over and above the general factor is shared among subsets of items that are alike in content (Rodriguez, Reise, & Haviland, 2016).

3. I was surprised by the confirmatory factor analysis in an Australian university. I had been thinking about the rationale as the development of an instrument particularly useful for understanding career development in collectivistic cultures. I think of Australia in terms of Anglo/individualistic culture. You may have provided a rationale that I missed. Think carefully about how you want to frame your study, so you don't lose readers when you pivot from collectivistic to individualistic cultures here. If it is about developing a universal measure, emphasize this more in the literature review.

Response:
Thank you for this suggestion. We discussed this among the authors, and, being conscious of your comments that the primary focus of the paper was on developing a scale for use with collectivist young people and their parents, and your request to "build up the section on collectivism", we removed the section on the CFA with the Australian students, which was superfluous. We think the paper is clearer and more focused with this omitted.

4. See if you can develop the implications section just a little bit more. The journal has a strong readership of practitioners who will be interested in the practical consequences of your findings. Could you provide a brief example (a couple of sentences) of what an intervention based on the results of your study might look like?

Response:
We accepted your suggestion. We added these statements before the Limitations section:

For example, when adolescents experience career distress at the beginning of a career counselling, counsellors can probe whether one of the sources of the problem is discrepancies between the adolescents' own goals and their parents' goals for them. Then, counsellors can explore the background to discrepancies, whether it is an ability, choice, or enthusiasm component, and how it influences decisions related to career development. Starting here, counsellors can then potentially explore how these aspects influence the young person's life and parental relationships.

5. I think that the reviewer offers other thoughtful suggestions regarding how the manuscript might be strengthened. I will not belabor them here—but please consider them carefully.

Response:
We addressed the Reviewer's suggestions below.

Comments from the Reviewer:

1. The first main concern regards the theoretical model. Specifically, the theoretical model on which the authors based their instrument is missing in introduction. In fact, the authors seem to go through attempts to test the factorial structure of the instrument without having a theoretical model of reference.

Response:
We have expanded our section in the Introduction on the theoretical background to the study. Specifically, we added the following:

Social Cognitive Career Theory and Goal-Setting Theory as Frames of References

According to social cognitive career theory (Lent et al., 1994; 2000), individual-parent career goal discrepancies are contextual influences, which can be both distal and proximal. Distal influences, such as opportunities to develop skills and the availability of career-related role models, occur before periods of active decision making, and affect the development of efficacy beliefs (e.g., regarding capacity to deal with career-related

activities), the expectations from engaging in these career-related activities, and the interest in these activities. Proximal influences, such as the availability of desirable jobs and the financial support to enter certain career paths, affect active career choice making. They do this, first, by affecting the individual's ability or willingness to translate career interests into goals and to transform goals into actions, and, second, they come into play at critical career choice junctures when they can exert direct effects on career goal choice and actions, such as when individuals have to suppress their career preference to follow parental wishes (Lent et al., 1994; Lent et al., 2000; Lent et al., 2002).

Goal-setting theory (Carver & Scheier, 1990; Latham & Locke, 1991) emphasises how goals regulate, and are regulated by, individuals' cognitive, affective, motivational, and behavioural processes. According to this theory, individual-parent career goal discrepancies disrupt future goal achievement. As individuals set goals and take goal-directed actions, they actively seek and monitor feedback from their external (e.g., parents) and internal environments (e.g., their own reflections), and because of this feedback adjust their goals and goal-pursuit actions (Bandura, 1989). Feedback from family and in-groups is a powerful moderating force in these processes, especially in collectivistic contexts. Wang and Heppner (2002) demonstrated that the degree to which collectivist students lived up to parental expectations served as a better predictor of reduced psychological distress than perceived parental expectations alone, and Leung, Hou, Gati, and Li (2011) showed that collectivistic students who were more likely to fulfil parental expectations dealt better with career choice issues than those who felt they gone against their parents' wishes.

2. The second main concern regards the choice of discrepancy analysis method used (see Previous Attempts to Measure Individual-Parent Career-Related Discrepancies session). The authors in the introductory session should clarify the discrepancy analysis method that they intend to pursue and they should justify their choice.

Response:

We made clear which approach we took and expanded on the justification for this. See pages 11 – 17, specifically regarding the domains we chose (i.e., choice, ability, and enthusiasm) and the rationales for these.

3. The third main concern regards the motivation linked to the creation of a new instrument. Specifically, it is not clear what limits related existing instruments the authors hope to overcome with the construction of a new instrument.

Response:

We expanded the justification for developing a new scale (e.g., "Having such a scale is likely to facilitate research in this area, which will potentially increase our understanding of the role of parents in the career development process of their children and generate recommendations for improving interventions for young people who are struggling to set and achieve their career goals"; p.1; but also elsewhere in paper); provided evidence that the scale accounts for variance in distress over and above the variance accounted for by another related scale (e.g., We also demonstrated that the newly-developed Individual-Parent Career Goal Discrepancies Scale (R^2 = .16) and the subscales (R^2 = .26) separately accounted for variance in distress over and above the

variance accounted for by the Adolescent-Parent Career Congruence Scale (R^2 = .09)."; p.18); and reinforced the need in the Discussion (e.g., "Extending career discrepancies research using this scale has the potential to add to our understanding of adolescent-parent disagreement/agreement in formulating and achieving career goals."; p.19).

References

Ajzen, I. (1988). *Attitudes, personality, and behavior*. Chicago, IL: Dorsey Press.

Anderson, K. L., & Mounts, N. S. (2012). Searching for the self: An identity control theory approach to triggers of occupational exploration. *The Journal of Genetic Psychology, 173*, 90-111. doi:10.1080/00221325.2011.573027

Armstrong, P. I., & Crombie, G. (2000). Compromises in adolescents' occupational aspirations and expectations from grades 8 to 10. *Journal of Vocational Behavior, 56*, 82-98. doi:10.1006/jvbe.1999.1709

Ashby, J. S., & Schoon, I. (2010). Career success: The role of teenage career aspirations, ambition value and gender in predicting adult social status and earnings. *Journal of Vocational Behavior, 77*, 350-360. doi:10.1016/j.jvb.2010.06.006

Brandtstädter, J., & Rothermund, K. (2002). The life-course dynamics of goal pursuit and goal adjustment: A two-process framework. *Developmental Review, 22*, 117-150. doi:10.1006/drev.2001.0539

Cross, S. E., Bacon, P. L., & Morris, M. L. (2000). The relational-interdependent self-construal and relationships. *Journal of Personality and Social Psychology, 78*, 791-808. doi:10.1037//0022-3514.78.4.791

Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.

Fouad, N. A., Guillen, A., Harris-Hodge, E., Henry, C., Novakovic, A., Terry, S., & Kantamneni, N. (2006). Need, awareness, and use of career services for college students. *Journal of Career Assessment, 14*, 407-420. doi:10.1177/1069072706288928

Gallagher, M. (2016). Adolescent-parent college aspiration discrepancies and changes in depressive symptoms. *Sociological Perspective, 59*, 296-316. doi:10.1177/0731121415589137

Kim, H., & Markus, H. R. (1999). Deviance or uniqueness, harmony or conformity? A cultural analysis. *Journal of Personality and Social Psychology, 77*, 785-800. doi:10.1037/0022-3514.77.4.785

Kim, U., & Park, Y. (2006). Indigenous psychological analysis of academic achievement in Korea: The influence of self-efficacy, parents, and culture. *International Journal of Psychology, 41*, 287-292. doi:10.1080/00207590544000068

Kitayama, S., & Uchida, Y. (2005). Interdependent agency: An alternative system for action. In R. Sorrentino, D. Cohen, J. M. Olson, & M. P. Zanna (Eds.), *Culture and social behaviour: The Ontario symposium* (Vol. 10, pp. 165-198). Mahwah, NJ: Lawrence Erlbaum Assoc.

Kitayama, S., Duffy, S., & Uchida, U. (2007). Self as cultural mode of being. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 137-164). New York, NY: Guilford Press.

Lapan, R. T., Shaughnessy, P., & Boggs, K. (1996). Efficacy expectations and vocational interests as mediators between sex and choice of math/science college majors: A longitudinal study. *Journal of Vocational Behavior, 49*, 277-291. doi: 10.1006/jvbe.1996.0044

Lee, S. Y., Hong, J. S., & Espelage, D. L. (2010). An ecological understanding of youth suicide in South Korea. *School Psychology International, 31*, 531-546.

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior, 45*, 79-122. doi:10.1006/jvbe.1994.1027

Lent, R. W., Brown, S. D., Schmidt, J., Brenner, B., Lyons, H., & Treistman, D. (2003). Relation of contextual supports and barriers to choice behavior in engineering majors: Test of alternative social cognitive models. *Journal of Counseling Psychology, 50*, 458-465. doi:10.1037/0022-0167.50.4.458

Leong, F. T., Hardin, E. E., & Gupta, A. (2011). Self in vocational psychology: A cultural formulation approach. In P. J. Hartung & L. M. Subich (Eds.), *Developing self in work and career. Concepts, cases, and contexts* (pp. 193-212). Washington, DC: American Psychological Association.

Locke, E.A., & Latham, G.P. (1990). *A theory of goal setting and task performance.* Englewood Cliffs, NJ: Prentice Hall.

Ma, P. W., Desai, U., George, L. S., San Filippo, A. A., & Varon, S. (2014). Managing family conflict over career decisions: The experience of Asian Americans. *Journal of Career Development, 41*, 487-506. doi:10.1177/0894845313512898

Ma, P.-W. W., & Yeh, C. J. (2005). Factors influencing the career decision status of Chinese American youths. *Career Development Quarterly, 53*, 337-347. doi:10.1002/j.2161-0045.2005.tb00664.x

Markus, H, R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253. doi:10.1037/0033-295X.98.2.224

Oettingen, G., & Zosuls, K.M. (2006). Culture and self-efficacy in adolescents. In F. Pajares & T. Urdan. (Eds.), *Self-efficacy beliefs of adolescents. Volume V of adolescence and education* (pp. 245-265). Greenwich, CT: Information Age Publishing.

Onifade, E., Lee, J., Mennicke, A., Holmes, J. L., & Harris, L. (2016). Predicting delinquent behaviors for Korean youth using the parent-child relationship and career goal tension. *Journal of Ethnicity in Criminal Justice, 14*, 137-155. doi:10.1080/15377938.2015.1126698

Pina-Watson, B., Jimenez, N., & Ojeda, L. (2014). Self-construal, career decision self-efficacy, and perceived barriers predict Mexican American women's life satisfaction. *The Career Development Quarterly, 62*, 210–233.

Rojewski, J. W. (2005). Career aspirations. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling. Putting theory and research to work.* (pp. 131-154). New Jersey, NJ: John Wiley & Sons.

Schoon, I., & Polek, E. (2011). Teenage career aspirations and adult career attainment: The role of gender, social background and general cognitive ability. *International Journal of Behavioral Development*, 35, 210-217. doi:10.1177/0165025411398183

Tang, M. (2002). A comparison of Asian American, Caucasian American, and Chinese college students: An initial report. *Journal of Multicultural Counseling and Development, 30,* 124-134. doi:10.1002/j.2161-1912.2002.tb00484.x

Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.

Wang, L.-F., & Heppner, P. P. (2002). Assessing the impact of parental expectations and psychological distress on Taiwanese college students. *The Counseling Psychologist, 30*, 582-608. doi:10.1177/00100002030004006

Yeh, K. H., & Bedford, O. (2004). Filial belief and parent-child conflict. *International Journal of Psychology, 39*, 132-144.

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Journal of Career Development

The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation

Journal:	*Journal of Career Development*
Manuscript ID	JCD-2018-0203.R1
Manuscript Type:	Empirical
Keywords:	career goals, discrepancies, parents, scale development, young people

The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation

A common source of intergenerational conflict between parents and their children is disagreement over career decisions (Leong, Kao, & Lee, 2004; Rogers, Creed, & Praskova, 2016). For example, most young adults from Asian-American families deal with parental disapproval when making career choices, which leads them to seek advice from others, apply strategies to educate their parents, and compromise their desires for parental expectations (Ma, Desai, George, San Filippo, & Varon, 2014). Consistent with this, Rogers et al. (2016) showed that the level of congruence between Australian adolescents and their parents on perceptions of the adolescents' career progress (in relation to career planning, exploration, decision certainty, and labour market knowledge) and level of vocational identity was only modest, suggesting that parents do not have a good perception of their children's career desires and progress, which could account for much adolescent/parent conflict.

Congruence between children and their parents on career aspirations, values, and preferences is likely to facilitate young people's career development, while disagreements are likely to impede it (Leung, Hou, Gati, & Li, 2011; Sawitri & Creed, 2015; Sawitri & Creed, 2017). However, testing the relationships between adolescent/parent career goal discrepancies and important career and life variables (e.g., career self-efficacy, career aspirations, and life satisfaction) is difficult as there currently is no scale available to measure the construct. Thus, the aim of this study was to create a reliable and valid scale that could assess discrepancies between individual-set and parent-set career goals. Having such a scale is likely to facilitate research in this area, which will potentially increase our understanding of the role of parents in the career

development process of their children and generate recommendations for improving interventions for young people who are struggling to set and achieve their career goals.

Career Goals and Conflict with Important Others

Career goals are important for young people for several reasons. First, they guide actual career choice actions (Lent et al., 1994). Several theories (e.g., goal setting, Locke & Latham, 1990; reasoned action, Ajzen, 1988) have proposed links between goals and actions, and many studies have demonstrated that career goals play an important role in predicting choice actions (e.g., Lapan, Shaughnessy, & Boggs, 1996; Lent et al., 2003). Second, career goals function as forerunners to actual career choices and later career and life success (Ashby & Schoon, 2010; Schoon & Polek, 2011). Through a complex set of processes and interactions, career goals enhance individual opportunities to acquire an advanced education, which in turn, creates greater career possibilities in adulthood (Rojewski, 2005). Finally, career goal setting is a crucial development task in career preparation and vocational identity development (Erikson, 1968). As goals are dynamic structures that need to be redefined over time to fit and respond to realities (Brandtstädter & Rothermund, 2002), individuals become increasingly career mature, realistic, and adapted to their career goals as they develop (Armstrong & Crombie, 2000).

Ma et al. (2014) showed that, for most adolescents, career-related conflict with family begins during the college years, or soon after. Students deal with a range of developmental tasks during their education. Many of these tasks connect and overlap with one another, and the inability to manage them can lead to psychological distress (Fouad et al., 2006). One of the main goals for young people is to be successful in their academic and career pursuits (Pina-Watson, Jimenez, & Ojeda, 2014). Confronted with discrepancies with parents regarding career direction and with how well they are progressing (vis-à-vis others' expectation), young people are faced

with decisions about adjusting their goals, and are faced with the disappointment of managing the many compromises that need to be made (Anderson & Mounts, 2012).

Career Goals, Conflict with Important Others, and Collectivism

According to Triandis (1995), collectivistic individuals view themselves as part of one or more "in-groups" (e.g., family, community, and nation). They emphasise their relationships to members of these in-groups, give priority to in-group goals, and shape their behaviours primarily to meet in-group norms. In contrast, individualists see themselves as independent of, or only loosely linked to, a particular group. They emphasise rational considerations of the costs and benefits of socialising with others, prioritise their personal goals over the goals of others, and direct their behaviours based on their own desires, rights, preferences, and arrangements they have with others.

Every individual has both collectivistic and individualistic components in their cognitive systems (Triandis, 1995). However, emphases differ depending on the individual's and/or group's cultural heritage. Individuals raised in countries with a collectivistic culture (e.g., Indonesia, India) have an augmented set of collectivistic elements and a weakened set of individualistic values. In contrast, those who have grown up in individualistic cultural settings (e.g., Australia, USA) tend to have greater individualistic predispositions and weaker collectivistic elements. When facing a situation, the former individuals are more likely to respond using a collectivistic orientation, while the latter tend to respond from an individualistic viewpoint, resulting in different social behaviours across settings (Triandis, 1995).

In individualistic cultures, personal agency is located within the individual; whereas in collectivistic contexts, personal agency is located largely in affirmative relationships with significant others, primarily parents (Kitayama & Uchida, 2005). The private selves of

collectivists are also much more likely to reflect goals of conformity and obedience to the family or group (Leong, Hardin, & Gupta, 2011). When individuals in collectivist cultures make a career decision, they do so with the interests and values of others in mind as well as their own interests. Satisfying significant others (e.g., parents) is likely to contribute to pleasing and satisfying themselves (Leong et al., 2011).

While people in individualistic cultures are primarily motivated by their own needs, individuals in collectivistic cultures are socialised to be more responsive to their in-group preferences (Oettingen & Zosuls, 2006). They are taught to maintain harmony and to protect important relationships with others by avoiding behaviours that could threaten the connection (Cross, Bacon, & Morris 2000). Therefore, individuals, especially young people, are motivated to fit in and adjust themselves to their significant others' expectations and needs, especially the expectations and needs of parents (Kitayama, Duffy, & Uchida, 2007).

Kim and Markus (1999) demonstrated that individuals from collectivistic backgrounds were more likely to make choices that indicated a preference for conformity; whereas their individualist counterparts preferred choices that represented uniqueness. Likewise, career development studies showed that collectivist adolescents are more willing to follow their parents' wishes, such as selecting careers consistent with their parents' advice rather than ones that represent their own choices (Tang, 2002). As young people are likely to consider the needs and desires of significant others in addition to their own when making important decisions (Cross et al., 2000), ignoring the wishes of parents when formulating career goals is contrary to their sense of self and value system (Hardin et al., 2001).

In collectivistic cultures, the process of fitting in and getting along with significant others builds the individuals' self-esteem and guides them to understand others by taking their

perspective (Leong et al., 2011). Young people also are taught to create a social reality that makes their accomplishments noticeable to their collective (Oettingen & Zosuls, 2006). They are more inclined to evaluate their accomplishments by considering how the achievements reflect on important in-group members; for example, whether their academic and career attainments will make their family or parents proud of them (Markus & Kitayama, 1991). Academic success and entering a respected occupation are important family responsibilities, and not the domain of the individual adolescent alone (Kim & Park, 2006). Thus, individuals in collectivist cultures need to consider their parents' support, expectations, emotional consequences, and agreement when setting goals and implementing career actions. Consequently, it is important for them to maintain some level of congruence between their own career aspirations and family expectations, as career goal discrepancies can disrupt their life and relationships with their parents (Lee, Hong, & Espelage, 2010).

Career goal tensions due to conflict between young peoples' personal career goals and those desired for them by their parents are related to poorer career progress, such as higher career indecision, a more dependent career identity (Ma & Yeh, 2005), and more career decision-making difficulties (Leung et al., 2011). More generally, career-related discrepancies and career goal tensions between young people and their parents are related to a poorer quality parent-child relationship (Onifade, Lee, Mennicke, Holmes, & Harris, 2016; Tang, 2002), especially when the child has to sacrifice personal aspirations to satisfy parental expectations (Yeh & Bedford, 2004). Discrepancies also result in poorer well-being (Wang & Heppner, 2002), higher depressive symptoms (Gallagher, 2016), and more delinquent behaviours (Onifade et al., 2016).

Social Cognitive Career Theory and Goal-Setting Theory as Frames of References

According to social cognitive career theory (Lent et al., 1994; 2000), individual-parent career goal discrepancies are contextual influences, which can be both distal and proximal. Distal influences, such as opportunities to develop skills and the availability of career-related role models, occur before periods of active decision making, and affect the development of efficacy beliefs (e.g., regarding capacity to deal with career-related activities), the expectations from engaging in these career-related activities, and the interest in these activities. Proximal influences, such as the availability of desirable jobs and the financial support to enter certain career paths, affect active career choice making. They do this, first, by affecting the individual's ability or willingness to translate career interests into goals and to transform goals into actions, and, second, they come into play at critical career choice junctures when they can exert direct effects on career goal choice and actions, such as when individuals have to suppress their career preference to follow parental wishes (Lent et al., 1994; Lent et al., 2000; Lent et al., 2002).

Goal-setting theory (Carver & Scheier, 1990; Latham & Locke, 1991) emphasises how goals regulate, and are regulated by, individuals' cognitive, affective, motivational, and behavioural processes. According to this theory, individual-parent career goal discrepancies disrupt future goal achievement. As individuals set goals and take goal-directed actions, they actively seek and monitor feedback from their external (e.g., parents) and internal environments (e.g., their own reflections), and because of this feedback adjust their goals and goal-pursuit actions (Bandura, 1989). Feedback from family and in-groups is a powerful moderating force in these processes, especially in collectivistic contexts. Wang and Heppner (2002) demonstrated that the degree to which collectivist students lived up to parental expectations served as a better predictor of reduced psychological distress than perceived parental expectations alone, and Leung, Hou, Gati, and Li (2011) showed that collectivistic students who were more likely to

fulfil parental expectations dealt better with career choice issues than those who felt they gone against their parents' wishes.

Previous Measures of Individual-Parent Career-Related Discrepancies

A widely used approach in studies on informant discrepancies relies on the computation of difference scores (i.e., subtracting one informant report from another, such as subtracting adolescent scores from those of their parents; Nelemas et al., 2016). These have been used to assess discrepancies between parent and adolescent perceptions of the parent-adolescent relationship (Nelemas et al., 2016), and compare children's vocational aspirations and their parents' expectations (Hou & Leung, 2011). Wang and Benner (2014) derived difference scores based on the young person's educational expectations and those of their parents and found that higher discrepancies were related to lower academic achievement, and Rutherford (2015) found that higher child-parent educational discrepancies of this type were related to poorer wellbeing in the child.

A second method to assess discrepancies is to ask informants about their own aspirations and their perceived aspirations that others have for them. Radhakrishnan and Chan (1997) asked collectivist and individualistic participants to rate the 10 most important goals that they had for themselves (self-set goals) and the 10 most important goals they perceived their parents had for them (parental goals), and subtracted one from the other to create discrepancy scores. The individualistic students rated their own goals as more important, while the collective students regarded their own and their parents' goals as equally important. Further, personal-parent goal discrepancies were related negatively to subjective well-being in the collectivist students; whereas well-being of the individualistic students was related negatively to discrepancies between personal goals and parental approval of these goals. More recently, Gallagher (2016)

assessed college aspiration discrepancies based on self and perceived parent expectation, and found that college students perceived their parents to have higher college aspirations for them than they had for themselves, and that higher perceived discrepancies were related more depressive symptoms.

There has been a long debate in the literature related to the putative problems associated with the use of difference scores (Edwards, 1993, 1994), which have been criticised, for example, for being unreliable and for reducing effect size (Edwards, 2001), and more recently, for having low validity (Laird & De Los Reyes, 2013). Despite these warnings, the case for the use of difference scores has been made (e.g., Gollwitzer, Christ, & Lemmer, 2014; Trafimow, 2015), but the measures remain cumbersome to use and can result in negative as well as positive individual case scores. These criticisms have led researchers to assess differences directly. Using this approach, informants are asked for their perceptions of the difference between their position and the position of a second party (e.g., "My parents and I don't agree on what course I should undertake"). Studies using this approach have been conducted in a diverse range of areas, including discrepancies between desired and expected service orientation (Chung & Schneider, 2002), language use and preference (Tannenbaum, 2003), and perceived self and brand "personality" (Jie, Chou, & Chou, 2012).

The Living-up-to Parental Expectations Inventory (Wang & Heppner, 2002) was devised to measure whether adolescents perceived themselves to be able to live up to parental expectations in personal maturity, academic achievement, and dating concern areas. This scale contains questions with two response options, one assessing self-expectations, and the other assessing perceived parental expectations. For example, to the career-related statement, "Parents expect me to study hard to get a high-paying job in the future", responses to two questions are

rated: "How strong do you currently perceive these expectations from your parents?", and "To what extent do you currently perform in this manner?" Individual discrepancy scores are then computed by subtracting the perceived parental expectations ratings from the self-ratings, which are then summed. Internal reliability coefficients of .83 and .84 were reported in two samples of Taiwanese undergraduate students, and validity supported by finding discrepancies correlated negatively with measures of anxiety and depression.

In the career domain, Sawitri, Creed, and Zimmer-Gembeck (2013) developed a direct measure of the congruence between adolescents and their parents on levels of career exploration, planning, and goal setting, whether adolescents perceive their career-related needs to be met by parents, and whether the parents were satisfied with the progress being achieved (e.g., "I am interested in the career areas that my parents expect me to enter"). Creed and Hood (2015) developed a 12-item scale to assess the perceived discrepancies between the person's desired career-related goals (vis-à-vis level, effort, self-standard, and ability) and actual progress being made to achieve the goals (e.g., "I thought I had the ability to get the career I want, but now I am not so sure"). This scale has sound reliability and was related negatively to career goal commitment and positively to career distress, as expected. Last, Creed and Gagliardi (2015) devised a 6-point scale to assess the perceived discrepancy between desired and actual career goals (e.g., "To what extent do you feel your current career direction is a compromise on the status you really wanted to have"). Again, reliability was good, and, as anticipated, the scale was related positively to career distress and negatively to perceived employability. From this overview of existing career discrepancy-related scales, it can be concluded that there are multiple underlying domains of the career discrepancies construct. (e.g., ability, choice, effort, progress).

Present Study

We followed classic scale development procedures (DeVellis, 2016) to develop and initially validate a scale to measure discrepancies between individual and perceived parent career-related goals. Focus group discussions with undergraduate students confirmed the discrepancy domains identified in the literature review that should be covered by the scale. Items were rated by four experts to support their content validity, and item and exploratory factor analyses were conducted on one half of our data to reduce the initial list of items to 15 and determine the underlying structure, and confirmatory factor analyses were conducted on the hold-out sample. Reliability and initial validity of the final measure were then assessed.

Phase 1 - Item Development

The aim of this phase was to generate sufficient initial items to allow any poorly functioning items to be discarded later (i.e., generate approx. twice as many as would appear in a final scale; Hinkin, 1998; Kline, 2000). Items were generated after a review of the literature (e.g., Galagher, 2016; Ghosh & Fouad, 2016; Onifade et al., 2016) and conducting four focus groups (conducted by first and third authors; $N = 36$ 1st-year students from a university in Central Java, Indonesia; approx. 9 students per focus group). Conducting focus groups with individuals from the target population enhances content validity of the items and helps validate the underlying domains of the construct (Vogt, King, & King, 2004). Students were asked to talk about their own career goals, their parents' career goals for them, the ways in which their career goals were discrepant from their parents', how these discrepancies might affect their willingness to achieve their career goals, the amount of energy they allocate to make career progress, and how career matters affect their well-being. The focus groups were recorded for later analysis.

From the literature review, focus groups, and with reference to other career discrepancy measures, we identified three broad domains of discrepancy. These were related to differences in

individual and parent perceptions of ability (e.g., to complete requisite education programs), choice (e.g., over the career direction chosen), and enthusiasm (e.g., amount of energy expended on progressing career direction). We then generated 24 positively worded items (i.e., positively worded to reduce response bias; Salazar, 2015), which were written in English, to represent these three domains. All items were then shown to four independent reviewers, who were experts in career and test development. They were asked to rate the suitability of each item to reflect a particular domain of the construct and to make comment regarding phrasing and readability. After feedback from the experts, some item wording was adjusted, and all items were retained.

We then used a standard forward and backward translation procedure (Jones, Lee, Phillips, Zang, & Jaceldo, 2001) to convert the 24 items into the Indonesian language. The first and the third authors (Indonesian nationals who also spoke English) translated the items into the Indonesian language, and the items were then blindly back-translated into English by two Indonesian speakers, who also spoke English. The back-translated version was compared with the original English version for precision of meaning, and then adjusted when required. Last, the final Indonesian language scale was piloted with three Indonesian undergraduate students to assess readability.

Phase 2 - Item Analysis and Exploratory Factor Analysis

The aim of this phase was to identify items to be retained in the scale using item analysis and exploratory factor analysis.

Method

Participants. We obtained data from 426 first year undergraduate students who were recruited from a State university in Semarang, Central Java, Indonesia. We divided this larger sample into two subsamples using a random split procedure. This procedure created a hold-out

sample to be used for cross-validation, which tests how well the original model can be generalised and guards against sample-specific bias and threats to reliability and validity if scale development is based on one sample only (Byrne, 2010).

Sample A contained 231 participants (67.5% young women; mean age 18.45 years, *SD* = .52), who were drawn from economics and business (59.7%) and social science (40.3%) disciplines. This sample was used for item analysis and exploratory factor analyses (Phase 2). Sample B contained 195 students (70.3% young women; mean age 18.37 years, *SD* = .65, from economics and business (52.8%) and social science disciplines (47.2%). Sample B was used for the confirmatory factor analyses in Phase 3. Chi-square and t-test analyses found no differences between the two samples on any of the demographic variables (age, $p = .65$; gender, $p = .37$; discipline, $p = .06$; GPA, $p = .65$), suggesting no bias as a result of the random split.

Materials

The 24 discrepancy items were administered along with two validity scales: the Adolescent-Parent Career Congruence Scale and the Career Distress Scale. As the Adolescent-Parent Career Congruence Scale assesses the level of agreement between adolescents and parents regarding career matters, we expected this scale to be associated negatively with the Individual-Parent Career Goal Discrepancies Scale. Career congruence between adolescents and their parents has been shown previously to be associated positively with life satisfaction (Sawitri et al., 2013); whereas lack of fit has been demonstrated to be correlated negatively with well-being (Wang & Heppner, 2002). Thus, we expected discrepancies between individual-set and parent-set career goals to be associated positively with career distress.

Discrepancies between individual and parent-set career goals. This was assessed using the 24 items generated in Phase 1. These items were expected to reflect three domains of

individual-parent career goal discrepancies of ability, choice, and enthusiasm. Example items were, "I don't think I can meet the requirements for the career my parents want for me" (ability), "My parents encourage me to pursue a career that I don't really want" (choice), and "I am not seriously trying to achieve the career my parents want for me" (enthusiasm). The students were asked to respond to each item using a Likert-type format, with options that ranged from 1 (*strongly disagree*) to 6 (*strongly agree*). Higher scores indicate greater discrepancy.

Adolescent-parent career congruence. We used the 12-item Adolescent-Parent Career Congruence Scale (Sawitri et al., 2013), which measures perceptions that parents are supportive and satisfied with the student's career-related actions and progress (e.g., "My parents are satisfied with the effort I have put in so far to achieve my career goals"), and perceptions that the student and parents have similar career values, interests, aspirations, and plans (e.g., "My parents and I have the same way of defining career success"; 6-point scale of 1 = *strongly disagree* to 6 = *strongly agree*). Higher scores indicate higher levels of career congruence with parents. Cronbach alpha was reported as .89, and validity was supported by finding positive correlations with measures of vertical and horizontal collectivism, self-efficacy, and career aspirations (Sawitri & Creed, 2017).

Career distress. This was assessed using the 9-item Career Distress Scale (Creed et al., 2016), which taps levels of subjective distress in relation to career decision-making and career goal-setting (e.g., "I often feel down or depressed about selecting a career", and "I feel stress or pressure to select a satisfying career"; 6-point scale of 1 = *strongly disagree* to 6 = *strongly agree*). Higher scores equate to more distress. Previous research has reported high internal reliability (.90) and support for validity by finding positive associations with negative affect and negative associations with positive affect (Creed et al., 2016).

Procedure

All scales, together with demographic questions (e.g., age, gender, and discipline), were administered to students in class time on campus. The study was conducted with approval from the authors' university ethics committee, and written permission was obtained from the participating university departments and all students in the study.

Results

Item analysis. To identify poor functioning items, we examined item skew and kurtosis, the inter-item correlations (where $r \geq .80$, items were marked for deletion), and item-total correlations ($r < .30$), and then assessed if participants responded differently to any items according to gender, age, and department (Kline, 2000). No items were identified as problematic; therefore, we did not remove any items at this stage.

Exploratory factor analysis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (.92) and Bartlett's test of sphericity ($p < .001$) indicated that the 24 items in Sample A were suitable for factor analysis. We used common factor analysis (EFA; i.e., principal-axis factor analysis), as the common variance is of interest in determining the underlying factor structure (Hair, Black, Babin, & Anderson, 2010). As the three anticipated factors were expected to be correlated domains of an overall individual-parent career goal discrepancies construct, we utilised a direct oblimin rotation (Hair et al., 2010). Following Kahn (2006) and Patil, Singh, Mishra, and Donovan (2008), we used a combination of decision rules to determine the number of factors to be retained: eigenvalues > 1, Velicer's MAP test, parallel analysis (O'Connor, 2000), a minimum of three items per factor (Costello & Osborne, 2005), and interpretability of factors (Hinkin, 1998).

The first EFA produced four factors with eigenvalues > 1, which accounted for 62.95% of variance. However, Velicer's MAP test, the scree plot, and the parallel analysis suggested a 3-factor solution. These three item groupings were interpretable theoretically, therefore, three factors were accepted. Subsequently, nine items were removed from the solution as the factor loadings were < .4 and/or less than twice as strong on the appropriate factor as on another factor (Hinkin, 1998). The final 15 items accounted for 68.58% of the variance: Factor 1 = 46.62%, Factor 2 = 15.49%, and Factor 3 = 6.47%. See Table 1 for factor loadings and eigenvalues.

Factor 1 (5 items; labelled "ability discrepancies") reflects the situation where individuals perceive that their abilities cannot meet the requirements for achieving parent-set career goals (α = .85, *M* = 32.77, *SD* = 5.01). Factor 2 (5 items; "choice discrepancies") captures the individual's belief that their own career goals are different from the career goals their parents have for them (α = .84, *M* = 20.89, *SD* = 4.41). Factor 3 (5 items; "enthusiasm discrepancies") reflects lack of motivation to achieve parent-set career goals. The associations among the three factors (.37, .41, and .69; all $p < .001$) were consistent with the results from the EFA, and indicated that the subscales were somewhat independent, but with overlap among them. Full scale alpha was .92.

Insert Table 1 about here

Phase 3 - Confirmatory Factor Analyses

The objective of this phase was to confirm the factor structure of the Individual-Parent Career Goal Discrepancies Scale using Sample B. By means of confirmatory factor analysis (AMOS Version 4.0; Arbuckle & Wothke, 1995), we tested the 3-factor structure identified in Phase 2 (i.e., ability, choice, and enthusiasm factors), and then compared this model with a 1-factor model, a hierarchical, 2nd-order model, and a bifactor model (Reise, Bonifay, & Haviland, 2013; van Prooijen & van der Kloot, 2001). A bifactor measurement model indicates that for a

given set of item responses, relationships among items can be explained by a general factor showing shared variance among all the items and a set of group factors where variance over and above the general factor is shared among subsets of items that are alike in content (Rodriguez, Reise, & Haviland, 2016).

Model fit was examined using the χ^2 statistic, the normed χ^2 (χ^2/df), the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA). A significant χ^2, χ^2/df < 3.0, CFI and TLI values > .95, and RMSEA < .08 indicate acceptable fit when participants < 250 and observed variables are between 12 and 30. We compared the different models using the χ^2-difference test and the Akaike Information Criterion (AIC), where the lower value indicates a better fit (Hair et al., 2010).

The 3-factor model identified in Phase 2 generated adequate fit statistics (see Table 2 for fit statistics for all models). All factor loadings were statistically significant (p < .001) and ranged from .85 to .93 (ability), .67 to .87 (choice), and .84 to .95 (enthusiasm). Correlations among the latent variables ranged from .43 to .59. The 2nd-order model (correlations with 2nd-order factor = .59 to .82) and bifactor model also had satisfactory fit statistics, but the 1-factor model did not. However, the best fitting model was the bifactor model, which was statistically different from the 3-factor model and also had the lowest AIC. The bifactor model was thus accepted as the best fit to the data. The bifactor model included a general latent variable (i.e., dependent on all 15 items) plus the three subscale latent variables identified in Phase 2 (i.e., three factors each dependent on their respective five items). This model assumes that each item is an indicator of both a global and subscale dimension, with the results for the global variable representing common sources of variance after controlling for subscale variances, and the subscale variables representing variances after controlling for the global variance (Reise et al., 2013).

Insert Table 2 about here

As our results supported multi-dimensionality of the Individual-Parent Career Goal Discrepancies Scale (i.e., the 3-factor, 2nd-order, and bifactor models all had satisfactory fit statistics; whereas the 1-factor model did not), we examined the bifactor model-based reliability estimates to determine whether the scale would be better interpreted at the global or subscale level. Following Rodriguez et al. (2016a; also see Rodriguez, Reise, & Haviland, 2016b), we used the Bifactor Indices Calculator (Dueber, 2017) to calculate Omega, OmegaH, Relative Omega, and the explained common variance (ECV). Omega, which is the model-based reliability coefficient, was .96 for the general factor, and for the specific factors was .94 (ability), .88 (choice) and .93 (enthusiasm), indicating high reliability for all factors. OmegaH, or the unique variance explained, was .76 for the general factor, and .38, .70, and .11, respectively, for the specific factors. Relative Omega (i.e., the proportion of reliable variance in the multidimensional composite) was .79 for the general factor, and .41, .79, and .12 for the specific factors. These statistics indicated that the majority of reliable variance was represented best by the general factor. Finally, ECV, or the proportion of common variance explained, was .57 for the general factor, and .15, .23, .05 for the specific factors, suggesting a moderately strong global factor, with much less variance explained by the specific factors. From this we can state that interpretation at the global level will give a more useful measure of discrepancies between individual-set and parent-set career goals, as the global factor accounts for more meaningful variance.

Phase 4: Construct Validity

The aim of this phase was to evaluate the initial construct validity of the scale by correlating scores from the Individual-Parent Career Goal Discrepancies Scale with scores from measures of adolescent-parent career congruence and career distress. We expected discrepancies

to be associated negatively with congruence and positively with distress. These analyses were conducted on Sample B (N = 195). All correlations were statistically significant and in the expected directions, as reported in Table 3. The results indicated that the Individual-Parent Career Goal Discrepancies Scale scores were related to the two other constructs as expected; providing support for construct validity of the measure. We also demonstrated that the newly-developed Individual-Parent Career Goal Discrepancies Scale (R^2 = .16) and the subscales (R^2 = .26) separately accounted for variance in distress over and above the variance accounted for by the Adolescent-Parent Career Congruence Scale (R^2 = .09).

Insert Table 3 about here

Discussion

We developed and presented initial evidence of validity for a psychometrically sound, 15-item scale to measure discrepancies between individual-set and parent-set career goals. We operationalized individual-parent career goal discrepancies as disparities between adolescent-set and parent-set career goals, which incorporated discrepancies between the individuals' perceived ability to meet parent-set goals, the choice of career goals, and enthusiasm for meeting parent-set career goals. Content validity was supported by a review of the literature, focus groups, pilot testing, and use of expert reviewers. Construct validity was supported by the EFAs and CFAs, which indicated that the new measure reflected the three intercorrelated domains (i.e., ability, choice, and enthusiasm discrepancies). We also provided evidence that the Individual-Parent Career Goal Discrepancies Scale should be interpreted at the full-scale level, and that at this level was internally reliable. Additionally, the association with the Adolescent-Parent Career Congruence Scale supported divergent construct validity, and the association with the Career Distress Scale supported convergent validity.

Previous research has demonstrated the importance of career-related discrepancies between young people and their parents (e.g., Leung et al., 2011). The present study provides a comprehensive measure of career discrepancy, which assesses multiple aspects of the individual-parent career goal discrepancies construct. At 15 items, the Individual-Parent Career Goal Discrepancies Scale will be practical and convenient to use when a short scale of important discrepancies between individual-set and parent-set career goals is needed in future research and practice.

Researchers have been hindered by the lack of an adequate scale in this area. Extending career discrepancies research using this scale has the potential to add to our understanding of adolescent-parent disagreement/agreement in formulating and achieving career goals. This can be done by extending current knowledge about the nature of disparities between individual self-set career goals and their parents' set career goals for their children, and identifying the precursors and consequences of discrepancies, especially the long-term consequences related to career progress, achievement, and satisfaction.

The Individual-Parent Career Goal Discrepancies Scale also will be of use to practitioners who work with young people on their career choice issues to optimize their career development. Practitioners can use the scale as a screening tool at an early stage of career counselling, as well as an evaluation instrument after a series of counselling sessions, at the end of a career intervention program, or after goal setting and goal actualisation processes. For example, when adolescents experience career distress at the beginning of a career counselling, counsellors can probe whether one of the sources of the problem is discrepancies between the adolescents' own goals and their parents' goals for them. Then, counsellors can explore the background to discrepancies, whether it is an ability, choice, or enthusiasm component, and how it influences

decisions related to career development. Starting here, counsellors can then potentially explore how these aspects influence the young person's life and parental relationships.

Limitations

In the scale development process, we used samples of first-year university students, which consisted of more young women than young men. Therefore, generalization to other groups of participants needs to be examined by assessing the psychometric properties of the scale on more diverse populations. As we did not test the predictive validity of the scale, future researchers need to investigate the across-time associations between scores on the scale at one point in time and later outcomes. We showed that the scale was unrelated to several demographic variables (e.g., age, gender), suggesting no inherent bias based on these characteristics; however, future studies need to assess for structural invariance on these and other variables to confirm these results.

Conclusion

In conclusion, the present research yielded support for an instrument to measure discrepancies between individual-set and parent-set career goals. Additional studies are needed to extend its nomological network and to examine whether the predictive use of the scale extends beyond its application to first year undergraduate students. We hope our findings contribute to the body of literature on young people's career development and lead to improved career counselling interventions.

References

Ajzen, I. (1988). *Attitudes, personality, and behavior*. Chicago, IL: Dorsey Press.

Anderson, K. L., & Mounts, N. S. (2012). Searching for the self: An identity control theory approach to triggers of occupational exploration. *The Journal of Genetic Psychology, 173*, 90-111. doi:10.1080/00221325.2011.573027

Arbuckle, J. L. & Wothke, W. (1995). *Amos 4.0 user's guide.* Chicago, IL: Small Waters Corporation.

Armstrong, P. I., & Crombie, G. (2000). Compromises in adolescents' occupational aspirations and expectations from grades 8 to 10. *Journal of Vocational Behavior, 56*, 82-98. doi:10.1006/jvbe.1999.1709

Ashby, J. S., & Schoon, I. (2010). Career success: The role of teenage career aspirations, ambition value and gender in predicting adult social status and earnings. *Journal of Vocational Behavior, 77*, 350-360. doi:10.1016/j.jvb.2010.06.006

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*, 1175-1184. doi:10.1037/0003-066X.44.9.1175

Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review, 97*, 19-35. doi:10.1037/0033-295X.97.1.19

Brandtstädter, J., & Rothermund, K. (2002). The life-course dynamics of goal pursuit and goal adjustment: A two-process framework. *Developmental Review, 22*, 117-150. doi:10.1006/drev.2001.0539

Byrne, B. (2010). *Structural equation modelling with AMOS: Basic concepts, applications, and programming*. New York, NY: Routledge.

Chung, B. G., & Schneider, B. (2002). Serving multiple masters: Role conflict experienced by service employees. *Journal of Service Marketing, 16*, 70-87.

Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation, 10*, 1-9. Retrieved from http://pareonline.net/pdf/v10n7.pdf

Creed, P. A., & Gagliardi, R-E. (2015). Career compromise, career distress, and perceptions of employability: The moderating roles of social capital and core self-evaluations. *Journal of Career Assessment, 23*, 20-34. doi:10.1177/1069072714523082

Creed, P. A., & Hood., M. H. (2015). The development and initial validation of a scale to assess career goal discrepancies. *Journal of Career Assessment, 23*, 308-317. doi:10.1177/1069072714535175

Creed, P. A., Hood, M. H., Praskova, A., & Makransky, G. (2016). The Career Distress Scale. Using Rasch measurement theory to evaluate a brief measure of career distress. *Journal of Career Assessment, 24*, 732-746. doi:10.1177/1069072715616126

Cross, S. E. & Markus, H. R. (1999). The cultural constitution of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality* (2nd ed., pp. 378-396). New York, NY: Guilford Press.

Cross, S. E., Bacon, P. L., & Morris, M. L. (2000). The relational-interdependent self-construal and relationships. *Journal of Personality and Social Psychology, 78*, 791-808. doi:10.1037//0022-3514.78.4.791

DeVellis, R. F. (2016). *Scale development: Theory and applications* (Vol. 26). Los Angeles, CA: Sage.

Edwards, J. R. (1994). Regression analysis as an alternative to difference scores. *Journal of Management*, *20*, 683-689.

Edwards, J. R. (2001). Ten difference score myths. *Organizational Research Methods*, *4*, 265-287.

Edwards, J. R., & Parry, M. E. (1993). On the use of polynomial regression equations as an alternative to difference scores in organizational research. *Academy of Management Journal*, *36*, 1577-1613.

Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.

Fouad, N. A., Guillen, A., Harris-Hodge, E., Henry, C., Novakovic, A., Terry, S., & Kantamneni, N. (2006). Need, awareness, and use of career services for college students. *Journal of Career Assessment, 14*, 407-420. doi:10.1177/1069072706288928

Gallagher, M. (2016). Adolescent-parent college aspiration discrepancies and changes in depressive symptoms. *Sociological Perspective, 59*, 296-316. doi:10.1177/0731121415589137

Ghosh, A., & Fouad, N. A. (2016). Family influence on careers among Asian parent-child dyads. *Journal of Career Assessment, 24*, 318-332. doi:10.1177/1069072715580417

Gollwitzer, M., Christ, O., & Lemmer, G. (2014). Individual differences make a difference: On the use and the psychometric properties of difference scores in social psychology. *European Journal of Social Psychology*, *44*, 673-682.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. (2010). *Multivariate data analysis. A global perspective.* (7th ed.). New Jersey, NJ: Prentice Hall.

Hinkin, T. R. (1998). A brief tutorial on the development of measures for the use in survey questionnaires. *Organizational Research Methods, 1*, 104-121. doi:10.1177/109442819800100106

Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments*. Odessa, FL: Psychological Assessment Resources.

Hou, Z., & Leung, S. A. (2011). Vocational aspirations of Chinese high school students and their parents' expectations. *Journal of Vocational Behavior, 79*, 349-360. doi:10.1016/j.jvb.2011.05.008

Jie, Y., Chou, T. J., & Chou, N. (2012). Assessing the fit of two brand personality scales in a Chinese context and revisiting the predictive validity of two methods of measuring self-congruity. *Journal of Brand Management*, *19*, 525-540.

Jones, P. S., Lee, J. W., Phillips, L. R., Zhang, X. E., & Jaceldo, K. B. (2001). An adaptation of Brislin's translation model for cross-cultural research. *Nursing Research, 50*, 300-304.

Kahn, J. H. (2006). Factor analysis in counseling psychology research, training, and practice. *The Counseling Psychologist, 34*, 684-718. doi:10.1177/0011000006286347

Kim, H., & Markus, H. R. (1999). Deviance or uniqueness, harmony or conformity? A cultural analysis. *Journal of Personality and Social Psychology, 77*, 785-800. doi:10.1037/0022-3514.77.4.785

Kim, U., & Park, Y. (2006). Indigenous psychological analysis of academic achievement in Korea: The influence of self-efficacy, parents, and culture. *International Journal of Psychology, 41*, 287-292. doi:10.1080/00207590544000068

Kline, P. (2000). *The handbook of psychological testing* (2nd ed.). London, UK: Routledge.

Kitayama, S., & Uchida, Y. (2005). Interdependent agency: An alternative system for action. In R. Sorrentino, D. Cohen, J. M. Olson, & M. P. Zanna (Eds.), *Culture and social behaviour: The Ontario symposium* (Vol. 10, pp. 165-198). Mahwah, NJ: Lawrence Erlbaum Assoc.

Kitayama, S., Duffy, S., & Uchida, U. (2007). Self as cultural mode of being. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 137-164). New York, NY: Guilford Press.

Laird, R. D., & De Los Reyes, A. (2013). Testing informant discrepancies as predictors of early adolescent psychopathology: Why difference scores cannot tell you what you want to know and how polynomial regression may. *Journal of Abnormal Child Psychopathology, 41*, 1-14. doi:10.1007/s10802-012-9659-y

Lapan, R. T., Shaughnessy, P., & Boggs, K. (1996). Efficacy expectations and vocational interests as mediators between sex and choice of math/science college majors: A longitudinal study. *Journal of Vocational Behavior, 49*, 277-291. doi: 10.1006/jvbe.1996.0044

Lee, J-M., Bell, N. J., & Watson, W. (2007). Situating alcohol use and delinquency within developmental and societal context: The case of Korean youth. *Journal of Adolescence, 30*, 835-851. doi:10.1016/j.adolescence.2006.09.005.

Lee, S. Y., Hong, J. S., & Espelage, D. L. (2010). An ecological understanding of youth suicide in South Korea. *School Psychology International, 31*, 531-546.

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior, 45*, 79-122. doi:10.1006/jvbe.1994.1027

Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology, 47*, 36-49. doi:10.1037//0022-0167.47.1.36

Lent, R. W., Brown, S. D., & Hackett, G. (2002). Social cognitive career theory. In D. Brown and Associates (Eds.), *Career choice and development* (4th ed., pp. 255-311).

Lent, R. W., Brown, S. D., Schmidt, J., Brenner, B., Lyons, H., & Treistman, D. (2003). Relation of contextual supports and barriers to choice behavior in engineering majors: Test of alternative social cognitive models. *Journal of Counseling Psychology, 50*, 458-465. doi:10.1037/0022-0167.50.4.458

Leong, F. T., Hardin, E. E., & Gupta, A. (2011). Self in vocational psychology: A cultural formulation approach. In P. J. Hartung & L. M. Subich (Eds.), *Developing self in work and career. Concepts, cases, and contexts* (pp. 193-212). Washington, DC: American Psychological Association.

Leong, F. T. L., Kao, E. M-C., & Lee, S-H. (2004). The relationship between family dynamics and career interests among Chinese Americans and European Americans. *Journal of Career Assessment, 12*, 65-84. doi:10.1177/1069072703257734

Leung, S. A., Hou, Z.-J., Gati, I., & Li, X. (2011). Effects of parental expectations and cultural-values orientation on career decision-making difficulties of Chinese university students. *Journal of Vocational Behavior, 78*, 11-20. doi:10.1016/j.jvb.2010.08.004

Locke, E.A., & Latham, G.P. (1990). *A theory of goal setting and task performance.* Englewood Cliffs, NJ: Prentice Hall.

Ma, P. W., Desai, U., George, L. S., San Filippo, A. A., & Varon, S. (2014). Managing family conflict over career decisions: The experience of Asian Americans. *Journal of Career Development, 41*, 487-506. doi:10.1177/0894845313512898

Ma, P.-W. W., & Yeh, C. J. (2005). Factors influencing the career decision status of Chinese American youths. *Career Development Quarterly, 53,* 337-347. doi:10.1002/j.2161-0045.2005.tb00664.x

Markus, H, R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253. doi:10.1037/0033-295X.98.2.224

Nelemas, S. A., Branje, S. J., Hale III, W. W., Goossens, L., Koot, H. M., Oldehinkel, A. J., & Meeus, W. H. (2016). *Journal of Youth and Adolescence, 45*, 2049-2063. doi:10.1007/s10964-016-0503-5

O'Connor, B. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, 32*, 396-402. doi:10.3758/bf03200807

Oettingen, G., & Zosuls, K.M. (2006). Culture and self-efficacy in adolescents. In F. Pajares & T. Urdan. (Eds.), *Self-efficacy beliefs of adolescents. Volume V of adolescence and education* (pp. 245-265). Greenwich, CT: Information Age Publishing.

Onifade, E., Lee, J., Mennicke, A., Holmes, J. L., & Harris, L. (2016). Predicting delinquent behaviors for Korean youth using the parent-child relationship and career goal tension. *Journal of Ethnicity in Criminal Justice, 14*, 137-155. doi:10.1080/15377938.2015.1126698

Patil, V. H., Singh, S. N., Mishra, S., & Donovan, D. T. (2008). Efficient theory development and factor retention criteria: Abandon the 'eigenvalue greater than one' criterion. *Journal of Business Research, 61*, 162-170. doi:10.1016/j.jbusres.2007.05.008

Pina-Watson, B., Jimenez, N., & Ojeda, L. (2014). Self-construal, career decision self-efficacy, and perceived barriers predict Mexican American women's life satisfaction. *The Career Development Quarterly, 62*, 210–233.

Radhakrishnan, P., & Chan, D. K.-S. (1997). Cultural differences in the relation between self-discrepancy and life satisfaction. *International Journal of Psychology, 32*, 387 - 398.

Reise, S. P., Bonifay, W. E., & Haviland, M. G. (2013). Scoring and modelling psychological measures in the presence of multidimensionality. *Journal of Personality Assessment, 95*, 129-140. doi:10180/00223891.2012.725437

Rogers, M. E., Creed, P. A., & Praskova, A. (2016). Parent and adolescent perceptions of adolescent career development tasks and vocational identity. *Journal of Career Development,* 1-16. doi:10.1177/0894845316667483

Rojewski, J. W. (2005). Career aspirations. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling. Putting theory and research to work.* (pp. 131-154). New Jersey, NJ: John Wiley & Sons.

Rutherford, T. (2015). Emotional well-being and discrepancies between child and parent educational expectations and aspirations in middle and high school. *International Journal of Adolescence and Youth, 20*, 69-85. doi:10.1080/02673843.2013.7677.42

Salazar, M. (2015). The dilemma of combining positive and negative items in scales. *Psicothema*, *27*, 192-199. doi:10.7334/psicothema2014.266

Sawitri, D. R., & Creed, P. A. (2015). Perceived career congruence between adolescents and their parents as a moderator between goal orientation and career aspirations. *Personality and Individual Differences, 81*, 29-34. doi:10.1016/j.paid.2014.12.061

Sawitri, D. R., & Creed, P. A. (2017). Collectivism and perceived congruence with parents as antecedents to career aspirations: A social cognitive perspective. *Journal of Career Development, 44*, 530-543. doi:10.1177/0894845316668576

Sawitri, D. R., Creed, P. A., & Zimmer-Gembeck, M. J. (2013). The Adolescent-Parent Career Congruence Scale: Development and initial validation. *Journal of Career Assessment, 21*, 210-226. doi:10.1177/1069272712466723

Schoon, I., & Polek, E. (2011). Teenage career aspirations and adult career attainment: The role of gender, social background and general cognitive ability. *International Journal of Behavioral Development*, 35, 210-217. doi:10.1177/0165025411398183

Tang, M. (2002). A comparison of Asian American, Caucasian American, and Chinese college students: An initial report. *Journal of Multicultural Counseling and Development*, *30*, 124-134. doi:10.1002/j.2161-1912.2002.tb00484.x

Tannenbaum, M. (2003). The multifaceted aspects of language maintenance: A new measure for its assessment in immigrant families. *International Journal of Bilingual Education and Bilingualism*, *6*, 374-393.

Trafimow, D. (2015). A defense against the alleged unreliability of difference scores. *Cogent Mathematics*, *2*, 1064626.

Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.

van Prooijen, J.-W., & van der Kloot, W. A. (2001). Confirmatory analysis of exploratively obtained factor structures. *Educational and Psychological Measurement, 61*, 777-792. doi:10.1177/00131640121971518

Vogt, D. S., King, D. W., & King, L. A. (2004). Focus groups in psychological assessment: Enhancing content validity by consulting members of the target population. *Psychological Assessment, 16*, 231-243. doi:10.1037/1040-3590.16.3.231

Wang, L.-F., & Heppner, P. P. (2002). Assessing the impact of parental expectations and psychological distress on Taiwanese college students. *The Counseling Psychologist, 30*, 582-608. doi:10.1177/00100002030004006

Wang, Y., & Benner, A. D. (2014). Parent-child discrepancies in educational expectations: Differential effects of actual versus perceived discrepancies. *Child Development, 85*, 891-890. doi:10.1111/cdev.12171

Yang, J., & Shin, K. (2008). Vulnerability, resilience, and well-being of intermarriage: An ethnographic approach to Korean women. *Journal of International Women's Studies, 10*, 46-63. Retrieved from http://vc.bridgew.edu/jiws/vo110/iss2/5

Yeh, K. H., & Bedford, O. (2004). Filial belief and parent-child conflict. *International Journal of Psychology, 39*, 132-144.

Young, R. A., Ball, J., Valach, L., Turkel, H., & Wong, Y. S. (2003). The family career development project in Chinese Canadian families. *Journal of Vocational Behavior, 62*, 287-304. doi:10.1016/S0001-8791(02)00022-2

Table 1

Factor Loadings for Discrepancies with Parent-Set Career Goals Scale; Sample A (N = 231)

Items	Factor 1: Ability	Factor 2: Choice	Factor 3: Enthusiasm
1. I don't think I can meet the requirements for the career my parents want for me.	**.93**	-.07	.03
2. I don't think I have what it takes to reach the career my parents think I should pursue.	**.83**	.06	.06
3. I am not as clever as I need to be to reach the career my parents want for me.	**.83**	.02	-.07
4. I am not sure that I have the ability to strive for the career my parents think is ideal for me.	**.82**	.04	-.04
5. I doubt that I am able to reach the career my parents think is best for me.	**.82**	-.03	-.06
6. My parents have a preferred career for me as they disagree with the choice I have made for myself.	-.01	**.93**	.07
7. My parents want me to change my own career choice to the career they really want for me.	-.08	**.82**	-.08
8. My parents insist that the career they want for me is better than my own career choice.	-.03	**.79**	.02
9. My parents believe that my own career choice is not good enough.	.01	**.77**	-.05
10. My parents encourage me to pursue a career that I don't really want.	.11	**.53**	.01
11. I am not motivated to reach the career my parents want me to have.	-.10	.04	**.95**
12. I am not enthusiastic about achieving the career my parents want for me.	.01	-.02	**.88**
13. I am not interested in making an effort towards the career my parents want me to have.	.10	-.02	**.78**
14. I am not seriously trying to achieve the career my parents want for me.	.01	-.03	**.73**
15. I am not working as hard as I could to achieve the career my parents want me to have.	.17	.12	**.63**
Eigenvalues	7.28	2.65	1.25
% variance explained	46.62	15.49	6.47

Note. Main loadings highlighted in bold.

Table 2

Model Fit Indices of the 3-Factor, 1-Factor, 2nd-Order Factor, and Bifactor Models for Sample B (N = 195)

Model	χ^2	*df*	χ^2/df	CFI	TLI	RMSEA	χ^2_{Diff}	AIC
3-factor	142.45***	75	1.90	.97	.97	.06	-	232.45
1-factor	1182.13***	90	13.14	.57	.50	.25	$p < .001$	1242,13
2nd order	111.10***	77	1.44	.99	.98	.05	$p < .001$	197.10
Bifactor	70.32***	64	1.10	.99	.98	.02	$p < .001$	182.32

Note. χ^2_{Diff} statistics refer to differences with 3-factor model. *** $p < .001$

Table 3

Summary Data for Sample B (N = 195)

Scale	*M*	*SD*	Range	α	1	2	3	4	5	6
1. Full scale	34.50	12.62	14-77	.92	-	.85***	.75***	.79***	-.76***	.40**
2. Subscale 1 (Ability discrepancies)	13.64	5.83	5-30	.95		-	.44**	.55**	-.56**	.49**
3. Subscale 2 (Choice discrepancies)	10.57	5.07	5-30	.88			-	.37**	-.62**	.26**
4. Subscale 3 (Enthusiasm discrepancies)	12.66	5.97	5-30	.94				-	-.65**	.17*
5. Adolescent-parent career congruence	54.36	10.15	17-72	.92					-	-.30**
6. Career distress	24.90	8.21	9-46	.87						-

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

4. Bukti Konfirmasi Review dan Hasil Review Kedua (17 Juni 2019)

Gmail

Dian Sawitri <dian.r.sawitri@gmail.com>

Journal of Career Development - Decision on Manuscript ID JCD-2018-0203.R1

Journal of Career Development <onbehalfof@manuscriptcentral.com> Mon, Jun 17, 2019 at 2:05 AM
Reply-To: JCD@missouri.edu
To: dian.r.sawitri@gmail.com

16-Jun-2019

Dear Dr. Sawitri:

I have now received and reviewed your revised manuscript. I think you have done a good job of responding to the previous round of feedback, and I very much appreciated your detailed letter outlining the changes that were made. I have also considered the reviewer's comments on this version. I thought the manuscript was much improved. On the other hand, I think there are still some important issues that should be addressed. Overall, I believe that this manuscript has the potential to make an important contribution to our understanding of career development. Please pardon the delay in my response.

Below I highlight the issues that I believe would be most important for a successful revision. Along with the revised manuscript, please include a cover letter how the revision has implemented my suggestions, or alternatively, it should provide a cogent rationale for why a specific suggestion was not followed.

1. I think that the lack of an abstract in the version I received must be the result of a computer glitch of some kind. Please make sure one is included in the next revision.

2. I very much appreciated the expanded treatment of collectivism and individualism. I do think you could edit it down just a bit. I found myself thinking that you had made your point several times as I was reading through this section. I would just shorten it a little. Maybe cut a sentence or two from each paragraph so the section reads more crisply.

3. And with the space you save, I would add a paragraph just before the "Present Study" section (bottom of page 9), stating what is unique about your measure and why it is necessary. You do such a good job describing the many measures out there that you leave the reader wondering why another is needed. Summarize the literature briefly and succinctly make the case for your measure.

4. Page 6, line 1: Do Lent et al actually talk about individual-parent discrepancies? If not, better to say something like "From the perspective of Social Cognitive…" than "According to social cognitive…"

5. Please address issues of APA style. In addition please be sure all your citations are listed in the references. For instance, I was looking for Rodriquez et al.

6. Page 12 lines 13: I found the phrase "two validity scales" confusing. Maybe "two scales to test for validity."
7. On page 19: add a header like "Implications for Research and Practice" before the paragraph that begins "Researchers have been hindered…"

8. I agree with the Reviewer—you should probably say a little bit more about the gender imbalance in your sample as a potential limitation, especially if gender socialization for young women in Indonesia includes deferring to the needs/desires of others.

9. The reviewer makes a number of other suggestions for improvement that I hope you will consider. The reviewer raises the issue of horizontal and vertical extensions to Triandis' model. You are already at the outer limits of the journal's page constraints. If it is possible to work it in briefly great, if not include it as a limitation or an area for future research.

I know that I am asking for a lot, and that you may prefer to send this study to another journal at this point. However, I did think your central message became obscured in the way the manuscript is currently written and I want to ensure the greatest impact possible.

I appreciate the hard work that you have already put into the manuscript, and it is my belief that it could be published if the concerns described above can be successfully addressed. I believe that this is a solid study. I anticipate that the next version of the manuscript will not need to be sent for a new round of peer review. Please keep the manuscript to a length of 30 pages including references and tables.

Given the rather straightforward nature of the feedback provided, I propose a deadline of August 1st to receive the

revision. If you anticipate now that this deadline will be difficult to meet, please contact me at once to discuss alternatives. I look forward to working with you in the final stages of work on this manuscript. Thank you very much for submitting your work to the Journal of Career Development. If you need clarification about any aspect of this letter, please do not hesitate to contact me.

Sincerely,
Dr. George Gushue, Ph.D.
Journal of Career Development

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2 attachments

JCD-2018-0203.R1-Decision-letter.pdf
77K

JCD-2018-0203.R1-Reviews.pdf
75K

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June 15, 2019

Dear Dr :

I have now received and reviewed your revised manuscript. I think you have done a good job of responding to the previous round of feedback, and I very much appreciated your detailed letter outlining the changes that were made. I have also considered the reviewer's comments on this version. I thought the manuscript was much improved. On the other hand, I think there are still some important issues that should be addressed. Overall, I believe that this manuscript has the potential to make an important contribution to our understanding of career development. Please pardon the delay in my response.

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Sincerely,

George V. Gushue, Ph.D.
Associate Editor
Journal of Career Development

JCD-2018-0203.R1: The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation

Review:

In this study the authors developed and demonstrated initial evidence of validity for a psychometrically sound, 15-item scale to measure discrepancies between individual-set and parent-set career goals. Yet, there are several important points that need to be carefully addressed in the manuscript. Following are some major recommendations to the authors:

1) The manuscript without an abstract is incomplete. A well-written abstract is clearly required.

2) In several parts of the manuscript, the authors are highly recommended to pay more attention on citing the references according to APA 6th Manual. For example, on line 19, (Ma, Desai, George, San Filippo, & Varon, 2014) was shown; however, in the following sentence the reference of three authors was mentioned as Rogers et al., (2016). This way of citing in-text references may create a confusion in the eyes of the readers. Please check for reference inconsistencies throughout the text.

3) In the introduction section, the authors are expected to bring rationale on why the current scales or prior measures of individual-parent career-related discrepancies are inadequate to assess discrepancies between parent and adolescent perceptions based on varying career aspirations. Why do we really need to have such a measure? The authors should be more

specific to illustrate the significance and originality of their attempts on a scale development in this section.

4) Again in the introduction section, it would be more accurate if the authors modify their claim regarding there is no scale available to measure the construct. Despite the availability of several measures and approaches in assessing the construct, the authors should be able to elaborate on why there is a specific need to develop a unique scale on individual-parent career related discrepancies. The authors well-summarized the previous measures and widely used approaches on the issue on page 7; however, they should highlight more about their unique contribution to the career development theory and practice. Thus, the introduction section seems to be relatively short and should be extended in line with the aforementioned arguments.

5) On page 3 to 5, the authors presented some literary evidence on career goals and conflict and how they are linked to cultural tendencies and values, particularly individualism (IND) and collectivism (COL) without any focus on the vertical and horizontal aspects of IND and COL. In this regard, the theoretical conceptualization is not likely to go beyond the dichotomic and bipolar understanding of collectivism-individualism despite the fact that several kinds of individualism and collectivism do exist. There has been a long debate in the literature and a great deal of attention has already been paid regarding research on individualism-collectivism which is misleadingly presumed as constituting two distinct cultural patterns. However, Singelis et al., (1995) differentiated individualism and collectivism by adding two more dimensions which are verticalism and horizontalism (such

as vertical/horizontal individualism, vertical/horizontal individualism). Thus, the authors should revisit the relevant part and extend this discussion particularly on page 3 to 5 in the light of these concerns.

Singelis, T. M, Triandis, H. C., Bhawuk, D. S., ve Gelfand, M. J. 1995. Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. Cross-Cultural Research, 29 (3): 240-275.

6) Before the method section, I am still unclear to what extent current measures are inadequate. Do they methodologically sound robust? Based on an overview of prior measures, what can be concluded? Do authors think that their unique contribution of this study is to address the sub-dimensions of the construct (e.g. ability, choice, effort etc.) which other studies have neglected so far?

7) The sample composition is predominantly females. Does this ratio reflect the true nature of the population itself? Is there a female dominant structure among undergraduates in business schools and social sciences in Indonesian context? What could be the possible reasons for having such a high number of female participants in the sample of this study? Meanwhile, are there any gender related differences between men and women? If so, the authors are expected to discuss more this aspect in the findings and discussion section?

8) Do the authors have a specific purpose and justification regarding their choice of first year undergraduate students as the sample of the study was entirely drawn upon first year students? However, I suggest authors to bring rationale and convincing justification to support the reason of choosing first year students particularly.The authors may have kept in mind that the career expectations and concerns of the first year students may differ from those who are relatively close to the graduation.

9) In the discussion section, the authors should provide greater insights into the generalizability of the use of this scale in other cultural settings by considering the cultural values scores (eg. Collectivism-Individualism) of Indonesia in major cross-cultural research studies (please revisit Hofstede's research, M. Gelfand's studies on cultural tightness-looseness and GLOBE to support your arguments and extend your discussion part.

10) The conclusion section in its current form seems to be too limited and has a narrow in scope. Please extend the conclusion part by incorporating the value and contribution of your study to the literature. The last sentence in the conclusion (line between 40 and 44, "we hope our findings contribute to the body of literature on young people's career development and lead to improved career counseling interventions") is too general and should be more concise. How do your results contribute to the young people's career development and how do these results lead to improved career counseling interventions? Please be more specific in articulating the career implications as well as future research directions.

5. Bukti Konfirmasi Submit Revisi Kedua, Respon kepada Reviewer, dan Artikel yang Diresubmit (1 Agt 2019)

Gmail

Dian Sawitri <dian.r.sawitri@gmail.com>

Journal of Career Development - Manuscript ID JCD-2018-0203.R2

Journal of Career Development <onbehalfof@manuscriptcentral.com> Thu, Aug 1, 2019 at 5:28 AM
Reply-To: JCD@missouri.edu
To: dian.r.sawitri@gmail.com, p.creed@griffith.edu.au, mirwan.perdhana@gmail.com

31-Jul-2019

Dear Dr. Sawitri:

Your manuscript entitled "The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation" has been successfully submitted online and will be given full consideration for publication in the Journal of Career Development. The Editor will strive to notify you the disposition of your submission in 12 weeks.

Your manuscript ID is JCD-2018-0203.R2.

Please mention the above manuscript ID in all future correspondence regarding this manuscript. If there are any changes in your contact information, please log in to Manuscript Central at https://mc.manuscriptcentral.com/jcdjournal and update your user information.

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Thank you for submitting your manuscript to the Journal of Career Development.

Sincerely,

Journal of Career Development Editorial Office

RESPONSE TO THE REVIEWER
JCD-2018-0203.R1

JCD-2018-0203.R1: The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation

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1) The manuscript without an abstract is incomplete. A well-written abstract is clearly required.

Response:
We noted this omission and provided an abstract for the current submission.

2) In several parts of the manuscript, the authors are highly recommended to pay more attention on citing the references according to APA 6th Manual. For example, on line 19, (Ma, Desai, George, San Filippo, & Varon, 2014) was shown; however, in the following sentence the reference of three authors was mentioned as Rogers et al., (2016). This way of citing in-text references may create a confusion in the eyes of the readers. Please check for reference inconsistencies throughout the text.

Response:
We referenced Rogers, Creed, and Praskova (2016) in line 2-3. Therefore, in the next citation we used Rogers et al. (2016).

3) In the introduction section, the authors are expected to bring rationale on why the current scales or prior measures of individual-parent career-related discrepancies are inadequate to assess discrepancies between parent and adolescent perceptions based on varying career aspirations. Why do we really need to have such a measure? The authors should be more specific to illustrate the significance and originality of their attempts on a scale development in this section.

Response:
We accepted this suggestion and provided stronger rationale. See p. 8. "*From this overview, it can be concluded that previous scales: (a) compare children's aspirations and their parents' expectations in the career (Hou & Leung, 2011) and educational domains (Wang & Benner, 2014); (b) compare important goals that young people have for themselves and important goals they perceive that their parents have for them (Radhakrisnan & Chan, 1997); (c) compare college aspiration discrepancies based on self and perceived parent expectations (Gallagher, 2016); (d) compare self and perceived parental expectations (Wang & Heppner, 2002); (e) measure congruence between adolescents and their parents on career matters (Sawitri et al., 2013); and (f) measure perceived discrepancies between desired career-related goals and actual progress being made to achieve those goals. We draw on these scale development approaches to devise a scale that assesses respondents' perceived differences between their own and their parents' career goals. As previous research has already identified*

meaningful underlying domains of the career discrepancies construct, we assess perceived discrepancies in child's ability, choice, and enthusiasm (Creed & Hood, 2015)."

4) Again in the introduction section, it would be more accurate if the authors modify their claim regarding there is no scale available to measure the construct. Despite the availability of several measures and approaches in assessing the construct, the authors should be able to elaborate on why there is a specific need to develop a unique scale on individual-parent career related discrepancies. The authors well-summarized the previous measures and widely used approaches on the issue on page 7; however, they should highlight more about their unique contribution to the career development theory and practice. Thus, the introduction section seems to be relatively short and should be extended in line with the aforementioned arguments.

Response:
We accepted this suggestion and highlighted our unique contribution to career development theory and practice on page 1 – 2: For example, "Having such a scale is likely to facilitate research in this area, which will potentially increase our understanding of the different aspects of career goal discrepancies between young people and their parents, and generate more specific recommendations for improving interventions for young people who are struggling to set and achieve their career goals."

5) On page 3 to 5, the authors presented some literary evidence on career goals and conflict and how they are linked to cultural tendencies and values, particularly individualism (IND) and collectivism (COL) without any focus on the vertical and horizontal aspects of IND and COL. In this regard, the theoretical conceptualization is not likely to go beyond the dichotomic and bipolar understanding of collectivism-individualism despite the fact that several kinds of individualism and collectivism do exist. There has been a long debate in the literature and a great deal of attention has already been paid regarding research on individualism-collectivism which is misleadingly presumed as constituting two distinct cultural patterns. However, Singelis et al., (1995) differentiated individualism and collectivism by adding two more dimensions which are verticalism and horizontalism (such as vertical/horizontal individualism, vertical/horizontal individualism). Thus, the authors should revisit the relevant part and extend this discussion particularly on page 3 to 5 in the light of these concerns.

Singelis, T. M, Triandis, H. C., Bhawuk, D. S., ve Gelfand, M. J. 1995. Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. Cross-Cultural Research, 29 (3): 240-275.

Response:
We adjusted the discussion on collectivism/individualism to make it broader and more applicable, but limited a detailed explanation of individualism and collectivism because, as the reviewer suggested, is dealt with more extensively elsewhere.

6) Before the method section, I am still unclear to what extent current measures are inadequate. Do they methodologically sound robust? Based on an overview of prior measures, what can be concluded? Do authors think that their unique contribution of this study is to address the sub-dimensions of the construct (e.g. ability, choice, effort etc.) which other studies have neglected so far?

Response:
We added to the section to clarify our approach. See page 8: "From this overview, it can be concluded that previous scales: (a) compare children's aspirations and their parents' expectations in the career (Hou & Leung, 2011) and educational domains (Wang & Benner, 2014); (b) compare important goals that young people have for themselves and important goals they perceive that their parents have for them (Radhakrisnan & Chan, 1997); (c) compare college aspiration discrepancies based on self and perceived parent expectations (Gallagher, 2016); (d) compare self and perceived parental expectations (Wang & Heppner, 2002); (e) measure congruence between adolescents and their parents on career matters (Sawitri et al., 2013); and (f) measure perceived discrepancies between desired career-related goals and actual progress being made to achieve those goals. We draw on these scale development approaches to devise a scale that assesses respondents' perceived differences between their own and their parents' career goals. As previous research has already identified meaningful underlying domains of the career discrepancies construct, we assess perceived discrepancies in child's ability, choice, and enthusiasm (Creed & Hood, 2015)."

7) The sample composition is predominantly females. Does this ratio reflect the true nature of the population itself? Is there a female dominant structure among undergraduates in business schools and social sciences in Indonesian context? What could be the possible reasons for having such a high number of female participants in the sample of this study? Meanwhile, are there any gender related differences between men and women? If so, the authors are expected to discuss more this aspect in the findings and discussion section?

Response:
We clarified that the sample "reflected the population in the university's economics and business…social science…disciplines" (p. 10). Additionally, we tested if there were gender differences, and found none, although we noted in the limitations section that future studies with larger samples needed to confirm structural invariance (p. 19).

8) Do the authors have a specific purpose and justification regarding their choice of first year undergraduate students as the sample of the study was entirely drawn upon first year students? However, I suggest authors to bring rationale and convincing justification to support the reason of choosing first year students particularly. The authors may have kept in mind that the career expectations and concerns of the first year students may differ from those who are relatively close to the graduation.

Response:
We accepted this suggestion and explained the rationale for involving first year undergraduate students (p. 2 – 3): "Young people believe that their parents should be involved when they formulate career goals (Tynkkynen et al., 2010), and they need to know that their parents are paying enough attention to them, are happy with their accomplishments, acknowledge their capacities, and trust them to make related decisions (Keller & Whiston, 2008). Conflict between parents and their children over career goals can disrupt a range of developmental tasks for young people, including career-related activities such as career exploration and decision-making. It can lead parents and children to both being distressed and dissatisfied, and can disrupt educational processes, such as the child selecting courses and programs that are not suitable (Fouad et al., 2006; Ma et al., 2014). A smooth pathway through education and transition to the labour market improves student academic achievement, satisfaction, and later career

success (Pina-Watson, Jimenez, & Ojeda, 2014; Rienties, Beausaert, Grohnert, Niemantsverdriet, & Kommers, 2012). Therefore, it is important to understand the barriers that impede how young people decide upon and implement career-related goals, as these affect many other aspects of their life (van Rooij, Jansen, & van de Grift, 2017). Confronted with discrepancies with parents regarding career direction and progress, young people are faced with protracted disputes with parents, disappointment, dissatisfaction, and having to adjust their goals (Anderson & Mounts, 2012)."

9) In the discussion section, the authors should provide greater insights into the generalizability of the use of this scale in other cultural settings by considering the cultural values scores (eg. Collectivism-Individualism) of Indonesia in major cross-cultural research studies (please revisit Hofstede's research, M. Gelfand's studies on cultural tightness-looseness and GLOBE to support your arguments and extend your discussion part.

Response:

We accepted this suggestion and provided related explanation on p. 19 – 20: "In the scale development process, we used samples of first-year Indonesian university students. While people in individualistic cultures are primarily motivated by their own needs, individuals in collectivistic cultures (e.g., in Indonesia) are socialised to be more responsive to their in-group preferences (Oettingen & Zosuls, 2006). They are taught to maintain harmony and to protect important relationships with others by avoiding behaviours that could threaten the connection (Cross, Bacon, & Morris 2000). Therefore, individuals, especially young people, are motivated to fit in and adjust themselves to their significant others' expectations and needs, especially the expectations and needs of parents (Kitayama, Duffy, & Uchida, 2007). Thus, generalisation of the scale to other collectivistic and individualistic groups of participants needs to be examined. Our samples also consisted of more young women than young men, and the use of the scale on more diverse populations needs to be investigated. As we did not test the predictive validity of the scale, future researchers should investigate the across-time associations between scores on the scale and later outcomes. We showed that the scale was unrelated to several demographic variables (e.g., age, gender), suggesting no inherent bias based on these characteristics; however, future studies using larger samples need to assess for structural invariance on these and other variables to confirm these results."

Conclusion

In conclusion, the present research yielded support for an instrument to measure discrepancies between individual-set and parent-set career goals. Additional studies are needed to extend its nomological network and to examine whether the predictive use of the scale extends beyond its application to first year undergraduate students. We hope our findings contribute to the body of literature on young people's career development and lead to improved career counselling interventions, as the scale captures aspects of career goal discrepancies of ability, choice, and enthusiasm, that have not been assessed by previous measures.

10) The conclusion section in its current form seems to be too limited and has a narrow in scope. Please extend the conclusion part by incorporating the value and contribution of your study to the literature. The last sentence in the conclusion (line between 40 and 44, "we hope our findings contribute to the body of literature on young people's career development and lead to improved career counseling interventions") is too general and should be more concise. How do your results contribute to the young

people's career development and how do these results lead to improved career counseling interventions? Please be more specific in articulating the career implications as well as future research directions.

Response:
We accepted this suggestion and extended the conclusion on p. 22: For example, "We hope our findings contribute to the body of literature on young people's career development and lead to improved career counselling interventions, as the scale captures aspects of career goal discrepancies of ability, choice, and enthusiasm, that have not been observed by previous measures."

RESPONSE TO THE EDITOR
JCD-2018-0203.R1

Below I highlight the issues that I believe would be most important for a successful revision. Along with the revised manuscript, please include a cover letter how the revision has implemented my suggestions, or alternatively, it should provide a cogent rationale for why a specific suggestion was not followed.

1. I think that the lack of an abstract in the version I received must be the result of a computer glitch of some kind. Please make sure one is included in the next revision.

Response:
We noted this omission and provided an abstract for the current submission.

2. I very much appreciated the expanded treatment of collectivism and individualism. I do think you could edit it down just a bit. I found myself thinking that you had made your point several times as I was reading through this section. I would just shorten it a little. Maybe cut a sentence or two from each paragraph so the section reads more crisply.

Response:
We accepted this suggestion and shortened the paragraph on p. 3 – 4:

"In individualistic cultures, personal agency, and thus goal setting and pursuit, is located mostly within the individual; whereas in collectivistic contexts, personal agency is located largely in affirmative relationships with significant others, primarily parents (Kitayama & Uchida, 2005). The private selves of collectivists are also much more likely to reflect goals of conformity and obedience to the family or group. When individuals in collectivist cultures make a career decision, they do so with the interests and values of others in mind as well as their own interests. Satisfying significant others (e.g., parents) is likely also to contribute to pleasing and satisfying themselves (Leong, Hardin, & Gupta, 2011).

Kim and Markus (1999) demonstrated that individuals from collectivistic backgrounds were more likely to make choices that indicated a preference for conformity; whereas their individualist counterparts preferred choices that represented uniqueness. Likewise, career development studies have shown that collectivist adolescents are more willing to follow their parents' wishes, such as selecting careers consistent with their parents' advice rather than ones that represent their own choices (Tang, 2002). As

young people are likely to consider the needs and desires of significant others in addition to their own when making important decisions (Cross et al., 2000), ignoring the wishes of parents when formulating career goals is contrary to their sense of self and value system (Hardin et al., 2001)."

3. And with the space you save, I would add a paragraph just before the "Present Study" section (bottom of page 9), stating what is unique about your measure and why it is necessary. You do such a good job describing the many measures out there that you leave the reader wondering why another is needed. Summarize the literature briefly and succinctly make the case for your measure.

Response:
We accepted this suggestion and summarize the literature briefly and succinctly. We modified the sentences to clarify the ideas on p. 8: "From this overview, it can be concluded that previous scales: (a) compare children's aspirations and their parents' expectations in the career (Hou & Leung, 2011) and educational domains (Wang & Benner, 2014); (b) compare important goals that young people have for themselves and important goals they perceive that their parents have for them (Radhakrisnan & Chan, 1997); (c) compare college aspiration discrepancies based on self and perceived parent expectations (Gallagher, 2016); (d) compare self and perceived parental expectations (Wang & Heppner, 2002); (e) measure congruence between adolescents and their parents on career matters (Sawitri et al., 2013); and (f) measure perceived discrepancies between desired career-related goals and actual progress being made to achieve those goals. We draw on these scale development approaches to devise a scale that assesses respondents' perceived differences between their own and their parents' career goals. As previous research has already identified meaningful underlying domains of the career discrepancies construct, we assess perceived discrepancies in child's ability, choice, and enthusiasm (Creed & Hood, 2015)."

4. Page 6, line 1: Do Lent et al actually talk about individual-parent discrepancies? If not, better to say something like "From the perspective of Social Cognitive…" than "According to social cognitive…"

Response:
We accepted this suggestion and changed the sentence as directed.

5. Please address issues of APA style. In addition, please be sure all your citations are listed in the references. For instance, I was looking for Rodriquez et al.

Response:
We accepted this suggestion and made sure all citations are listed in the references; for example:

Rodriguez, A., Reise, S. P., & Haviland, M. G. (2016a). Applying bifactor statistical indices in the evaluation of psychological measures. Journal of Personality Assessment, 98, 223-237. doi:10.1080/00223891.2015.1089249

Rodriguez, A., Reise, S. P., & Haviland, M. G. (2016b). Evaluating bifactor models: Calculating and interpreting statistical indices. Psychological Methods, 21, 137-150. doi:10.1037/met0000045

6. Page 12 lines 13: I found the phrase "two validity scales" confusing. Maybe "two scales to test for validity."

Response:

We accepted this suggestion and changed the sentence: "The 24 discrepancy items were administered along with two scales to test for validity: the Adolescent-Parent Career Congruence Scale and the Career Distress Scale."

7. On page 19: add a header like "Implications for Research and Practice" before the paragraph that begins "Researchers have been hindered…"

Response:
We accepted this suggestion and added a header as suggested.

8. I agree with the Reviewer—you should probably say a little bit more about the gender imbalance in your sample as a potential limitation, especially if gender socialization for young women in Indonesia includes deferring to the needs/desires of others.

Response:
We accepted this suggested and added several sentences on p.19: "Our samples also consisted of more young women than young men, and the use of the scale on more diverse populations needs to be investigated. As we did not test the predictive validity of the scale, future researchers should investigate the across-time associations between scores on the scale and later outcomes. We showed that the scale was unrelated to several demographic variables (e.g., age, gender), suggesting no inherent bias based on these characteristics; however, future studies using larger samples need to assess for structural invariance on these and other variables to confirm these results."

9. The reviewer makes a number of other suggestions for improvement that I hope you will consider. The reviewer raises the issue of horizontal and vertical extensions to Triandis' model. You are already at the outer limits of the journal's page constraints. If it is possible to work it in briefly great, if not include it as a limitation or an area for future research.

Response:
We accepted this suggestion and ensured that we deleted unnecessary sentences on page 2 – 3.

Journal of Career Development

The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation

Journal:	*Journal of Career Development*
Manuscript ID	JCD-2018-0203.R2
Manuscript Type:	Empirical
Keywords:	career goals, discrepancies, parents, scale development, young people

Running head: THE ADOLESCENT-PARENT CAREER CONGRUENCE SCALE

The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation

Abstract

As there was no existing, psychometrically sound scale that directly assessed the discrepancies that young people experience between individual-set career goals and parent-set career goals, we developed and provided initial validation for a 15-item scale for use with young adults. In Study 1, items were developed, reviewed by experts, and administered to a sample of first year, undergraduate Indonesian students (N = 426, M age = 18.42 years). We used exploratory factor analysis to reduce the number of items and assess the factor structure, and used confirmatory factor analyses on a hold-out sample to assess this underlying structure. We then provided evidence for construct validity. Recommendations for use in research and practice are discussed.

Keywords: career goals, discrepancies, parents, scale development, young people

The Discrepancies between Individual-Set and Parent-Set Career Goals Scale: Development and Initial Validation

A common source of intergenerational conflict between parents and their children is disagreement over career decisions (Leong, Kao, & Lee, 2004; Rogers, Creed, & Praskova, 2016). For example, most young adults from Asian-American families deal with parental disapproval when making career choices, which leads them to seek advice from others, apply strategies to educate their parents, and compromise their own desires for parental expectations (Ma, Desai, George, San Filippo, & Varon, 2014). Consistent with this, Rogers et al. (2016) showed that the level of congruence between Australian adolescents and their parents on perceptions of the adolescents' career progress (in relation to career planning, exploration, decision certainty, and labour market knowledge) and level of vocational identity was only modest, suggesting that parents do not have a good perception of their children's career desires and progress, which could account for much adolescent/parent conflict.

Congruence between children and their parents on career aspirations, values, and preferences is likely to facilitate young people's career development, while disagreements are likely to impede it (Leung, Hou, Gati, & Li, 2011; Sawitri & Creed, 2015; Sawitri & Creed, 2017). However, testing the relationships between adolescent/parent career goal discrepancies and important career and life variables (e.g., career self-efficacy, career aspirations, and life satisfaction) is difficult as there currently is no scale available to measure the construct. Thus, the aim of this study was to create a reliable and valid scale that could assess discrepancies between individual-set and parent-set career goals. Having such a scale is likely to facilitate research in this area, which will potentially increase our understanding of the different aspects of career goal discrepancies between young people and their parents, and generate more specific

recommendations for improving interventions for young people who are struggling to set and achieve their career goals.

Career Goals and Conflict with Important Others

Career goals are important for young people for several reasons. First, they guide actual career choice actions (Lent et al., 1994). Several theories (e.g., goal setting, Locke & Latham, 1990; reasoned action, Ajzen, 1988) have proposed links between goals and actions, and many studies have demonstrated that career goals play an important role in predicting choice actions (e.g., Lent et al., 2003). Second, career goals function as forerunners to actual career choices and action, and later career and life success (e.g., Schoon & Polek, 2011). Through a complex set of processes and interactions, career goals enhance individual opportunities to acquire an advanced education, which in turn, creates greater career possibilities in adulthood (Rojewski, 2005). Finally, career goal setting is a crucial development task in career preparation and vocational identity development (Erikson, 1968). As goals are dynamic structures that need to be redefined over time to fit and respond to realities (Brandtstädter & Rothermund, 2002), individuals become increasingly career mature, realistic, and adapted to their career goals as they develop (Armstrong & Crombie, 2000).

Young people believe that their parents should be involved when they formulate career goals (Tynkkynen, Nurmi, & Salmela-Aro, 2010), and they need to know that their parents are paying enough attention to them, are happy with their accomplishments, acknowledge their capacities, and trust them to make related decisions (Keller & Whiston, 2008). Conflict between parents and their children over career goals can disrupt a range of developmental tasks for young people, including career-related activities such as career exploration and decision-making. It can lead parents and children to both being distressed and dissatisfied, and can disrupt educational

processes, such as the child selecting courses and programs that are not suitable (Fouad et al., 2006; Ma et al., 2014). A smooth pathway through education and transition to the labour market improves student academic achievement, satisfaction, and later career success (Pina-Watson, Jimenez, & Ojeda, 2014; Rienties, Beausaert, Grohnert, Niemantsverdriet, & Kommers, 2012). Therefore, it is important to understand the barriers that impede how young people decide upon and implement career-related goals, as these affect many other aspects of their life (van Rooij, Jansen, & van de Grift, 2017). Confronted with discrepancies with parents regarding career direction and progress, young people are faced with protracted disputes with parents, disappointment, dissatisfaction, and having to adjust their goals (Anderson & Mounts, 2012).

In individualistic cultures, personal agency, and thus goal setting and pursuit, is located mostly within the individual; whereas in collectivistic contexts, personal agency is located largely in affirmative relationships with significant others, primarily parents (Kitayama & Uchida, 2005). The private selves of collectivists are also much more likely to reflect goals of conformity and obedience to the family or group. When individuals in collectivist cultures make a career decision, they do so with the interests and values of others in mind as well as their own interests. Satisfying significant others (e.g., parents) is likely also to contribute to pleasing and satisfying themselves (Leong, Hardin, & Gupta, 2011).

Kim and Markus (1999) demonstrated that individuals from collectivistic backgrounds were more likely to make choices that indicated a preference for conformity; whereas their individualist counterparts preferred choices that represented uniqueness. Likewise, career development studies have shown that collectivist adolescents are more willing to follow their parents' wishes, such as selecting careers consistent with their parents' advice rather than ones that represent their own choices (Tang, 2002). As young people are likely to consider the needs

and desires of significant others in addition to their own when making important decisions (Cross et al., 2000), ignoring the wishes of parents when formulating career goals is contrary to their sense of self and value system (Leong et al., 2011).

Career goal tensions due to conflict between young peoples' personal career goals and those desired for them by their parents are related to poorer career progress, such as higher career indecision, a more dependent career identity (Ma & Yeh, 2005), and more career decision-making difficulties (Leung et al., 2011). More generally, career-related discrepancies and career goal tensions between young people and their parents are related to a poorer quality parent-child relationship (Onifade, Lee, Mennicke, Holmes, & Harris, 2016; Tang, 2002), especially when the child has to sacrifice personal aspirations to satisfy parental expectations (Yeh & Bedford, 2004). Discrepancies also result in poorer wellbeing (Wang & Heppner, 2002), higher depressive symptoms (Gallagher, 2016), and more delinquent behaviours (Onifade et al.).

Social Cognitive Career Theory and Goal-Setting Theory as Frames of References

From the perspective of social cognitive career theory (Lent et al., 1994; 2000), individual-parent career goal discrepancies are contextual influences, which can be both distal and proximal. Distal influences, such as opportunities to develop skills and the availability of career-related role models, occur before periods of active decision making, and affect the development of efficacy beliefs (e.g., regarding capacity to deal with career-related activities), the expectations from engaging in these career-related activities, and the interest in these activities. Proximal influences, such as the availability of desirable jobs and the financial support to enter certain career paths, affect active career choice making. They do this, first, by affecting the individual's ability or willingness to translate career interests into goals, and then to transform goals into actions; second, they come into play at critical career choice junctures when

they can exert direct effects on career goal choice and actions, such as when individuals have to suppress their career preference to follow parental wishes (Lent et al., 1994; 2000).

Goal-setting theory (Carver & Scheier, 1990; Latham & Locke, 1991) emphasises how goals regulate, and are regulated by, individuals' cognitive, affective, motivational, and behavioural processes. According to this theory, individual-parent career goal discrepancies disrupt goal pursuit and future goal achievement. As individuals set goals and take goal-directed actions, they actively seek and monitor feedback from their external (e.g., parents) and internal environments (e.g., their own reflections), and because of this feedback adjust their goals and goal-pursuit actions (Bandura, 1989). Feedback from family and in-groups is a powerful moderating force in these processes, especially in collectivistic contexts. Wang and Heppner (2002) demonstrated that the degree to which collectivist students lived up to parental expectations served as a better predictor of reduced psychological distress than perceived parental expectations alone, and Leung, Hou, Gati, and Li (2011) showed that collectivistic students who were more likely to fulfil parental expectations dealt better with career choice issues than those who felt they had gone against their parents' wishes.

Previous Measures of Individual-Parent Career-Related Discrepancies

A widely used approach in studies on informant discrepancies relies on the computation of difference scores (i.e., subtracting one informant report from another, such as subtracting adolescent scores from those of parents; Nelemas et al., 2016). These have been used to assess discrepancies between parent and adolescent perceptions of the parent-adolescent relationship (Nelemas et al., 2016), and compare children's vocational aspirations and their parents' expectations (Hou & Leung, 2011). Wang and Benner (2014) derived difference scores based on the young person's educational expectations and those of their parents and found that higher

discrepancies were related to lower academic achievement, and Rutherford (2015) found that higher child-parent educational discrepancies of this type were related to poorer wellbeing in children.

A second method to assess discrepancies is to ask informants about their own aspirations and their perceived aspirations that others have for them. Radhakrishnan and Chan (1997) asked collectivist and individualistic participants to rate the 10 most important goals that they had for themselves (self-set goals) and the 10 most important goals they perceived their parents had for them (parental goals), and subtracted one from the other to create discrepancy scores. The individualistic students rated their own goals as more important, while the collective students regarded their own and their parents' goals as equally important. Further, personal-parent goal discrepancies were related negatively to subjective wellbeing in the collectivist students; whereas wellbeing of the individualistic students was related negatively to discrepancies between personal goals and parental approval of these goals. More recently, Gallagher (2016) assessed college aspiration discrepancies based on self and perceived parent expectation, and found that college students perceived their parents to have higher college aspirations for them than they had for themselves, and that higher perceived discrepancies were related to more depressive symptoms.

There has been a long debate in the literature related to the putative problems associated with the use of difference scores (Edwards, 1993, 1994), which have been criticised, for example, for being unreliable and for reducing effect size (Edwards, 2001), and more recently, for having low validity (Laird & De Los Reyes, 2013). Despite these warnings, the case for the use of difference scores has been made (e.g., Gollwitzer, Christ, & Lemmer, 2014; Trafimow, 2015), but the measures remain cumbersome to use and can result in negative as well as positive

individual case scores. These criticisms have led researchers to assess differences directly. Using this approach, informants are asked for their perceptions of the difference between their position and the position of a second party (e.g., "My parents and I don't agree on what course I should undertake"). Studies using this approach have been conducted in a diverse range of areas, including discrepancies between desired and expected service orientation (Chung & Schneider, 2002), language use and preference (Tannenbaum, 2003), and perceived self and brand "personality" (Jie, Chou, & Chou, 2012).

The Living up to Parental Expectations Inventory (Wang & Heppner, 2002) was devised to measure whether adolescents perceived themselves to be able to live up to parental expectations in personal maturity, academic achievement, and dating concern areas. This scale contains questions with two response options, one assessing self-expectations, and the other assessing perceived parental expectations. For example, to the career-related statement, "Parents expect me to study hard to get a high-paying job in the future", responses to two questions are rated: "How strong do you currently perceive these expectations from your parents?", and "To what extent do you currently perform in this manner?". Individual discrepancy scores are then computed by subtracting the perceived parental expectations ratings from the self-ratings, which are then summed.

In the career domain, Sawitri, Creed, and Zimmer-Gembeck (2013) developed a direct measure of the congruence between adolescents and their parents on levels of career exploration, planning, and goal setting, whether adolescents perceive their career-related needs to be met by parents, and whether the parents were satisfied with the progress being achieved (e.g., "I am interested in the career areas that my parents expect me to enter"). Creed and Hood (2015) developed a 12-item scale to assess the perceived discrepancies between the person's desired

career-related goals (vis-à-vis level, effort, self-standard, and ability) and actual progress being made to achieve the goals (e.g., "I thought I had the ability to get the career I want, but now I am not so sure"). Last, Creed and Gagliardi (2015) devised a 6-point scale to assess the perceived discrepancy between desired and actual career goals (e.g., "To what extent do you feel your current career direction is a compromise on the status you really wanted to have").

From this overview, it can be concluded that previous scales: (a) compare children's aspirations and their parents' expectations in the career (Hou & Leung, 2011) and educational domains (Wang & Benner, 2014); (b) compare important goals that young people have for themselves and important goals they perceive that their parents have for them (Radhakrisnan & Chan, 1997); (c) compare college aspiration discrepancies based on self and perceived parent expectations (Gallagher, 2016); (d) compare self and perceived parental expectations (Wang & Heppner, 2002); (e) measure congruence between adolescents and their parents on career matters (Sawitri et al., 2013); and (f) measure perceived discrepancies between desired career-related goals and actual progress being made to achieve those goals. We draw on these scale development approaches to devise a scale that assesses respondents' perceived differences between their own and their parents' career goals. As previous research has already identified meaningful underlying domains of the career discrepancies construct, we assess perceived discrepancies in child's ability, choice, and enthusiasm (Creed & Hood, 2015).

Present Study

We followed classic scale development procedures (DeVellis, 2016) to develop and initially validate a scale to measure discrepancies between individual and perceived parent career-related goals. Focus group discussions with undergraduate students confirmed the discrepancy domains identified in the literature that should be covered by the scale. Items were

rated by four experts to support their content validity, and item and exploratory factor analyses were conducted on one half of our data to reduce the initial list of items to 15 and determine the underlying structure, and confirmatory factor analyses were conducted on the hold-out sample. Reliability and initial validity of the final measure were then assessed.

Phase 1 - Item Development

The aim of this phase was to generate sufficient initial items to allow any poorly functioning items to be discarded later (i.e., generate approx. twice as many as would appear in a final scale; Hinkin, 1998; Kline, 2000). Items were generated after a review of the literature (e.g., Galagher, 2016; Ghosh & Fouad, 2016) and conducting four focus groups (led by first and third authors; $N = 36$ 1st-year students from a university in Central Java, Indonesia; approx. 9 students per focus group). Conducting focus groups with individuals from the target population enhances content validity of the items and helps validate the underlying domains of the construct (Vogt, King, & King, 2004). Students were asked to talk about their own career goals, their parents' career goals for them, the ways in which their career goals were discrepant from their parents', how these discrepancies might affect their willingness to achieve their career goals, the amount of energy they allocate to make career progress, and how career matters affect their wellbeing. The focus groups were recorded for later analysis.

From the literature review, focus groups, and with reference to other career discrepancy measures, we confirmed three broad domains of discrepancy: differences in individual and parent perceptions of ability (e.g., to complete requisite education programs), choice (e.g., over the career direction chosen), and enthusiasm (e.g., amount of energy expended on progressing career direction). We then generated 24 positively worded items (i.e., positively worded to reduce response bias; Salazar, 2015), which were written in English, to represent these three

domains. All items were then shown to four independent reviewers, who were experts in career and test development. They were asked to rate the suitability of each item to reflect a particular domain of the construct and to make comment regarding phrasing and readability. After feedback from the experts, some item wording was adjusted, and all items were retained.

We then used a standard forward and backward translation procedure (Jones, Lee, Phillips, Zang, & Jaceldo, 2001) to convert the 24 items into the Indonesian language. The first and the third authors (Indonesian nationals who also spoke English) translated the items into the Indonesian language, and the items were then blindly back-translated into English by two Indonesian speakers, who also spoke English. The back-translated version was compared with the original English version for precision of meaning and adjusted when required. Last, the final Indonesian language scale was piloted with three Indonesian undergraduate students to assess readability.

Phase 2 - Item Analysis and Exploratory Factor Analysis

The aim of this phase was to identify items to be retained in the scale using item analysis and exploratory factor analysis.

Method

Participants. We obtained data from 426 first year undergraduate students who were recruited from a State university in Semarang, Central Java, Indonesia. We divided this larger sample into two subsamples using a random split procedure. This procedure created a hold-out sample that was used for cross-validation. This tests how well the original model can be generalised and guards against sample-specific bias and threats to reliability and validity if scale development is based on one sample only (Byrne, 2010).

Sample A contained 231 participants (67.5% young women; mean age 18.45 years, *SD* = .52), who reflected the population in the university's economics and business (59.7%) and social science (40.3%) disciplines. This sample was used for item analysis and exploratory factor analyses (Phase 2). Sample B contained 195 students (70.3% young women; mean age 18.37 years, *SD* = .65, from economics and business (52.8%) and social science disciplines (47.2%). Sample B was used for the confirmatory factor analyses in Phase 3. Chi-square and t-test analyses found no differences between the two samples on any of the demographic variables (age, $p = .65$; gender, $p = .37$; discipline, $p = .06$; GPA, $p = .65$), suggesting no bias as a result of the random split.

Materials

The 24 discrepancy items were administered along with two scales to test for validity: the Adolescent-Parent Career Congruence Scale and the Career Distress Scale. As the Adolescent-Parent Career Congruence Scale assesses the level of agreement between adolescents and parents regarding career matters, we expected this scale to be associated negatively with the Individual-Parent Career Goal Discrepancies Scale. Career congruence between adolescents and their parents has been shown previously to be associated positively with life satisfaction (Sawitri et al., 2013); whereas lack of fit has been demonstrated to be correlated negatively with wellbeing (Wang & Heppner, 2002). Thus, we expected discrepancies between individual-set and parent-set career goals to be associated positively with career distress.

Discrepancies between individual and parent-set career goals. This was assessed using the 24 items generated in Phase 1. These items were expected to reflect three domains of individual-parent career goal discrepancies of ability, choice, and enthusiasm. Example items were, "I don't think I can meet the requirements for the career my parents want for me" (ability),

"My parents encourage me to pursue a career that I don't really want" (choice), and "I am not seriously trying to achieve the career my parents want for me" (enthusiasm). The students were asked to respond to each item using a Likert-type format, with options that ranged from 1 (*strongly disagree*) to 6 (*strongly agree*). Higher scores indicate greater discrepancy.

Adolescent-parent career congruence. We used the 12-item Adolescent-Parent Career Congruence Scale (Sawitri et al., 2013), which measures perceptions that parents are supportive and satisfied with the student's career-related actions and progress (e.g., "My parents are satisfied with the effort I have put in so far to achieve my career goals"), and perceptions that the student and parents have similar career values, interests, aspirations, and plans (e.g., "My parents and I have the same way of defining career success"; 6-point scale of 1 = *strongly disagree* to 6 = *strongly agree*). Higher scores indicate higher levels of career congruence with parents. Cronbach alpha was reported as .89, and validity was supported by finding positive correlations with measures of vertical and horizontal collectivism, self-efficacy, and career aspirations (Sawitri & Creed, 2017).

Career distress. This was assessed using the 9-item Career Distress Scale (Creed et al., 2016), which taps levels of subjective distress in relation to career decision-making and career goal-setting (e.g., "I often feel down or depressed about selecting a career", and "I feel stress or pressure to select a satisfying career"; 6-point scale of 1 = *strongly disagree* to 6 = *strongly agree*). Higher scores equate to more distress. Previous research has reported high internal reliability ($\alpha = .90$) and support for validity by finding positive associations with negative affect and negative associations with positive affect (Creed et al., 2016).

Procedure

All scales, together with demographic questions (e.g., age, gender, and discipline), were administered to students in class time on campus. The study was conducted with approval from the authors' university ethics committee, and written permission was obtained from the participating university departments and all students in the study.

Results

Item analysis. To identify poor functioning items, we examined item skew and kurtosis, the inter-item correlations (where $r \geq .80$, items were marked for deletion), and item-total correlations ($r < .30$), and then assessed if participants responded differently to any items according to gender, age, and department (Kline, 2000). No items were identified as problematic; therefore, we did not remove any items at this stage.

Exploratory factor analysis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (.92) and Bartlett's test of sphericity ($p < .001$) indicated that the 24 items in Sample A were suitable for factor analysis. We used common factor analysis (EFA; i.e., principal-axis factor analysis), as the common variance is of interest in determining the underlying factor structure (Hair, Black, Babin, & Anderson, 2010). As the three anticipated factors were expected to be correlated domains of an overall individual-parent career goal discrepancies construct, we utilised a direct oblimin rotation (Hair et al., 2010). Following Patil, Singh, Mishra, and Donovan (2008), we used a combination of decision rules to determine the number of factors to be retained: eigenvalues > 1, Velicer's MAP test, parallel analysis (O'Connor, 2000), a minimum of three items per factor (Costello & Osborne, 2005), and interpretability of factors (Hinkin, 1998).

The first EFA produced four factors with eigenvalues > 1, which accounted for 62.95% of variance. However, Velicer's MAP test, the scree plot, and the parallel analysis suggested a 3-factor solution. These three item groupings were interpretable theoretically, therefore, three

factors were accepted. Subsequently, nine items were removed from the solution as the factor loadings were < .4 and/or less than twice as strong on the appropriate factor as on another factor (Hinkin, 1998). The final 15 items accounted for 68.58% of the variance: Factor 1 = 46.62%, Factor 2 = 15.49%, and Factor 3 = 6.47%. See Table 1 for factor loadings and eigenvalues.

Factor 1 (5 items; labelled "ability discrepancies") reflects the situation where individuals perceive that their abilities cannot meet the requirements for achieving parent-set career goals (α = .85, M = 32.77, SD = 5.01). Factor 2 (5 items; "choice discrepancies") captures the individual's belief that their own career goals are different from the career goals their parents have for them (α = .84, M = 20.89, SD = 4.41). Factor 3 (5 items; "enthusiasm discrepancies") reflects lack of motivation to achieve parent-set career goals. The associations among the three factors (.37, .41, and .69; all p < .001) were consistent with the results from the EFA, and indicated that the subscales were somewhat independent, but with overlap among them. Full scale alpha was .92.

Insert Table 1 about here

Phase 3 - Confirmatory Factor Analyses

The objective of this phase was to confirm the factor structure of the Individual-Parent Career Goal Discrepancies Scale using Sample B. By means of confirmatory factor analysis (AMOS Version 4.0; Arbuckle & Wothke, 1995), we tested the 3-factor structure identified in Phase 2 (i.e., ability, choice, and enthusiasm factors), and then compared this model with a 1-factor model, a hierarchical, 2nd-order model, and a bifactor model (Reise, Bonifay, & Haviland, 2013; van Prooijen & van der Kloot, 2001). A bifactor model assesses the extent to which the relationships among items can be explained by a general factor and a set of group factors that are alike in content (Rodriguez, Reise, & Haviland, 2016).

Model fit was examined using the χ^2 statistic, normed χ^2 (χ^2/df), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA). A significant χ^2, χ^2/df < 3.0, CFI and TLI values > .95, and RMSEA < .08 indicate acceptable fit when participants < 250 and observed variables are between 12 and 30. We compared the different models using the χ^2-difference test and the Akaike Information Criterion (AIC), where the lower value indicates a better fit (Hair et al., 2010).

The 3-factor model identified in Phase 2 generated acceptable fit statistics (see Table 2 for fit statistics for all models). All factor loadings were significant (p < .001) and ranged from .85 to .93 (ability), .67 to .87 (choice), and .84 to .95 (enthusiasm); correlations among latent variables ranged from .43 to .59. The 2nd-order model (correlations with 2nd-order factor = .59 to .82) and bifactor model also had satisfactory fit statistics, but the 1-factor model did not. The best fitting model was the bifactor model, which was statistically different from the 3-factor model and had the lowest AIC. The bifactor model contained a general latent variable (i.e., dependent on all 15 items) plus three subscale latent variables identified in Phase 2 (i.e., three factors each dependent on their respective five items). This model assumes that each item is an indicator of both a global and subscale dimension, with the results for the global variable representing common sources of variance after controlling for subscale variances, and the subscale variables representing variances after controlling for the global variance (Reise et al., 2013).

Insert Table 2 about here

Following recommendations by Rodriguez et al. (2016a; also see Rodriguez, Reise, & Haviland, 2016b), we examined the bifactor reliability estimates using the Bifactor Indices Calculator (Dueber, 2017) to calculate Omega, OmegaH, Relative Omega, and the explained common variance (ECV). Omega, which is the model-based reliability coefficient, was .96 for the

general factor, and for the specific factors was .94 (ability), .88 (choice) and .93 (enthusiasm), indicating high reliability for all factors. OmegaH, or the unique variance explained, was .76 for the general factor, and .38, .70, and .11, respectively, for the specific factors. Relative Omega (i.e., the proportion of reliable variance in the multidimensional composite) was .79 for the general factor, and .41, .79, and .12 for the specific factors. These statistics indicated that the majority of reliable variance was represented best by the general factor. Finally, ECV, or the proportion of common variance explained, was .57 for the general factor, and .15, .23, .05 for the specific factors, suggesting a moderately strong global factor, with much less variance explained by the specific factors. While our results supported multi-dimensionality of the Individual-Parent Career Goal Discrepancies Scale (i.e., 3-factor, 2nd-order, and bifactor models all had satisfactory fit statistics; whereas the 1-factor model did not), analysis of the bifactor statistics suggest that interpretation at the global level will give a more useful measure of discrepancies between individual-set and parent-set career goals, as the global factor accounts for more meaningful variance.

Phase 4: Construct Validity

The aim of this phase was to evaluate the initial construct validity of the scale by correlating scores from the Individual-Parent Career Goal Discrepancies Scale with scores from measures of adolescent-parent career congruence and career distress. We expected discrepancies to be associated negatively with congruence and positively with distress. These analyses were conducted on Sample B (N = 195). All correlations were significant and in the expected directions, as reported in Table 3. The results indicated that the Individual-Parent Career Goal Discrepancies Scale scores were related to the two other constructs as expected; providing support for construct validity of the measure. We also demonstrated that the newly-developed Individual-Parent Career Goal Discrepancies Scale (R^2 = .16) and the subscales (R^2 = .26)

separately accounted for variance in distress over and above the variance accounted for by the Adolescent-Parent Career Congruence Scale ($R^2 = .09$).

Insert Table 3 about here

Discussion

We developed and presented initial evidence of validity for a psychometrically sound, 15-item scale to measure discrepancies between individual-set and parent-set career goals. We operationalized individual-parent career goal discrepancies as disparities between adolescent-set and parent-set career goals, which incorporated discrepancies between the individuals' perceived ability to meet parent-set goals, the choice of career goals, and enthusiasm for meeting parent-set career goals. Content validity was supported by a review of the literature, focus groups, pilot testing, and use of expert reviewers. Construct validity was supported by the EFAs and CFAs, which indicated that the new measure reflected the three intercorrelated domains (i.e., ability, choice, and enthusiasm discrepancies). We also provided evidence that the Individual-Parent Career Goal Discrepancies Scale might more meaningfully be interpreted at the full-scale level, and that at this level it was internally reliable. Additionally, the association with the Adolescent-Parent Career Congruence Scale supported divergent construct validity, and the association with the Career Distress Scale supported convergent validity.

Previous research has demonstrated the importance of career-related discrepancies between young people and their parents (e.g., Leung et al., 2011). The present study provides a comprehensive measure of career discrepancy, which assesses multiple aspects of the individual-parent career goal discrepancies construct. At 15 items, the Individual-Parent Career Goal Discrepancies Scale will be practical and convenient to use when a short scale of important

discrepancies between individual-set and parent-set career goals is needed in future research and practice.

Implications for Research and Practice

Researchers have been hindered by the lack of an adequate scale in this area. Extending career discrepancies research using this scale has the potential to add to our understanding of adolescent-parent disagreement/agreement in formulating and achieving career goals. This can be done by extending current knowledge about the nature of disparities between individual self-set career goals and their parents' set career goals for their children, and identifying the precursors and consequences of discrepancies, especially the long-term consequences related to career progress, achievement, and satisfaction.

The Individual-Parent Career Goal Discrepancies Scale also will be of use to practitioners who work with young people on their career choice issues to optimize their career development. Practitioners can use the scale as a screening tool at an early stage of career counselling, as well as an evaluation instrument after a series of counselling sessions, at the end of a career intervention program, or after goal setting and goal actualisation processes. For example, when adolescents experience career distress at the beginning of a career counselling, counsellors can probe whether one of the sources of the problem is discrepancies between the adolescents' own goals and their parents' goals for them. Then, counsellors can explore the background to these discrepancies, whether it is an ability, choice, or enthusiasm component, and how they influence decisions related to career development. Starting here, counsellors can then potentially explore how these aspects influence the young person's life and parental relationships.

Limitations

In the scale development process, we used samples of first-year Indonesian university students. While people in individualistic cultures are primarily motivated by their own needs, individuals in collectivistic cultures (e.g., in Indonesia) are socialised to be more responsive to their in-group preferences (Oettingen & Zosuls, 2006). They are taught to maintain harmony and to protect important relationships with others by avoiding behaviours that could threaten the connection (Cross, Bacon, & Morris 2000). Therefore, individuals, especially young people, are motivated to fit in and adjust themselves to their significant others' expectations and needs, especially the expectations and needs of parents (Kitayama, Duffy, & Uchida, 2007). Thus, generalisation of the scale to other collectivistic and individualistic groups of participants needs to be examined. Our samples also consisted of more young women than young men, and the use of the scale on more diverse populations needs to be investigated. As we did not test the predictive validity of the scale, future researchers should investigate the across-time associations between scores on the scale and later outcomes. We showed that the scale was unrelated to several demographic variables (e.g., age, gender), suggesting no inherent bias based on these characteristics; however, future studies using larger samples need to assess for structural invariance on these and other variables to confirm these results.

Conclusion

In conclusion, the present research yielded support for an instrument to measure discrepancies between individual-set and parent-set career goals. Additional studies are needed to extend its nomological network and to examine whether the predictive use of the scale extends beyond its application to first year undergraduate students. We hope our findings contribute to the body of literature on young people's career development and lead to improved career

counselling interventions, as the scale captures aspects of career goal discrepancies of ability, choice, and enthusiasm, that have not been assessed by previous measures.

References

Ajzen, I. (1988). *Attitudes, personality, and behavior*. Chicago, IL: Dorsey Press.

Anderson, K. L., & Mounts, N. S. (2012). Searching for the self: An identity control theory approach to triggers of occupational exploration. *The Journal of Genetic Psychology, 173*, 90-111. doi:10.1080/00221325.2011.573027

Arbuckle, J. L. & Wothke, W. (1995). *Amos 4.0 user's guide.* Chicago, IL: Small Waters Corporation.

Armstrong, P. I., & Crombie, G. (2000). Compromises in adolescents' occupational aspirations and expectations from grades 8 to 10. *Journal of Vocational Behavior, 56*, 82-98. doi:10.1006/jvbe.1999.1709

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*, 1175-1184. doi:10.1037/0003-066X.44.9.1175

Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review, 97*, 19-35. doi:10.1037/0033-295X.97.1.19

Brandtstädter, J., & Rothermund, K. (2002). The life-course dynamics of goal pursuit and goal adjustment: A two-process framework. *Developmental Review, 22*, 117-150. doi:10.1006/drev.2001.0539

Byrne, B. (2010). *Structural equation modelling with AMOS: Basic concepts, applications, and programming*. New York, NY: Routledge.

Chung, B. G., & Schneider, B. (2002). Serving multiple masters: Role conflict experienced by service employees. *Journal of Service Marketing, 16*, 70-87.

Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation, 10*, 1-9. Retrieved from http://pareonline.net/pdf/v10n7.pdf

Creed, P. A., & Gagliardi, R-E. (2015). Career compromise, career distress, and perceptions of employability: The moderating roles of social capital and core self-evaluations. *Journal of Career Assessment, 23*, 20-34. doi:10.1177/1069072714523082

Creed, P. A., & Hood., M. H. (2015). The development and initial validation of a scale to assess career goal discrepancies. *Journal of Career Assessment, 23*, 308-317. doi:10.1177/1069072714535175

Creed, P. A., Hood, M. H., Praskova, A., & Makransky, G. (2016). The Career Distress Scale. Using Rasch measurement theory to evaluate a brief measure of career distress. *Journal of Career Assessment, 24*, 732-746. doi:10.1177/1069072715616126

Cross, S. E. & Markus, H. R. (1999). The cultural constitution of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality* (2nd ed., pp. 378-396). New York, NY: Guilford Press.

Cross, S. E., Bacon, P. L., & Morris, M. L. (2000). The relational-interdependent self-construal and relationships. *Journal of Personality and Social Psychology, 78*, 791-808. doi:10.1037//0022-3514.78.4.791

DeVellis, R. F. (2016). *Scale development: Theory and applications* (Vol. 26). Los Angeles, CA: Sage.

Edwards, J. R. (1994). Regression analysis as an alternative to difference scores. *Journal of Management*, *20*, 683-689.

Edwards, J. R. (2001). Ten difference score myths. *Organizational Research Methods*, *4*, 265-287.

Edwards, J. R., & Parry, M. E. (1993). On the use of polynomial regression equations as an alternative to difference scores in organizational research. *Academy of Management Journal*, *36*, 1577-1613.

Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.

Fouad, N. A., Guillen, A., Harris-Hodge, E., Henry, C., Novakovic, A., Terry, S., & Kantamneni, N. (2006). Need, awareness, and use of career services for college students. *Journal of Career Assessment, 14*, 407-420. doi:10.1177/1069072706288928

Gallagher, M. (2016). Adolescent-parent college aspiration discrepancies and changes in depressive symptoms. *Sociological Perspective, 59*, 296-316. doi:10.1177/0731121415589137

Ghosh, A., & Fouad, N. A. (2016). Family influence on careers among Asian parent-child dyads. *Journal of Career Assessment, 24*, 318-332. doi:10.1177/1069072715580417

Gollwitzer, M., Christ, O., & Lemmer, G. (2014). Individual differences make a difference: On the use and the psychometric properties of difference scores in social psychology. *European Journal of Social Psychology*, *44*, 673-682.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. (2010). *Multivariate data analysis. A global perspective.* (7th ed.). New Jersey, NJ: Prentice Hall.

Hinkin, T. R. (1998). A brief tutorial on the development of measures for the use in survey questionnaires. *Organizational Research Methods, 1*, 104-121. doi:10.1177/109442819800100106

Hou, Z., & Leung, S. A. (2011). Vocational aspirations of Chinese high school students and their parents' expectations. *Journal of Vocational Behavior, 79*, 349-360. doi:10.1016/j.jvb.2011.05.008

Jie, Y., Chou, T. J., & Chou, N. (2012). Assessing the fit of two brand personality scales in a Chinese context and revisiting the predictive validity of two methods of measuring self-congruity. *Journal of Brand Management*, *19*, 525-540.

Jones, P. S., Lee, J. W., Phillips, L. R., Zhang, X. E., & Jaceldo, K. B. (2001). An adaptation of Brislin's translation model for cross-cultural research. *Nursing Research, 50*, 300-304.

Keller, B. K., & Whiston, S. C. (2008). The role of parental influences on young adolescents' career development. *Journal of Career Assessment, 16,* 198-217. doi:10.1177/1069072707313206

Kim, H., & Markus, H. R. (1999). Deviance or uniqueness, harmony or conformity? A cultural analysis. *Journal of Personality and Social Psychology, 77*, 785-800. doi:10.1037/0022-3514.77.4.785

Kline, P. (2000). *The handbook of psychological testing* (2nd ed.). London, UK: Routledge.

Kitayama, S., & Uchida, Y. (2005). Interdependent agency: An alternative system for action. In R. Sorrentino, D. Cohen, J. M. Olson, & M. P. Zanna (Eds.), *Culture and social behaviour: The Ontario symposium* (Vol. 10, pp. 165-198). Mahwah, NJ: Lawrence Erlbaum Assoc.

Kitayama, S., Duffy, S., & Uchida, U. (2007). Self as cultural mode of being. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 137-164). New York, NY: Guilford Press.

Laird, R. D., & De Los Reyes, A. (2013). Testing informant discrepancies as predictors of early adolescent psychopathology: Why difference scores cannot tell you what you want to know and how polynomial regression may. *Journal of Abnormal Child Psychopathology, 41*, 1-14. doi:10.1007/s10802-012-9659-y

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior, 45*, 79-122. doi:10.1006/jvbe.1994.1027

Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology, 47*, 36-49. doi:10.1037//0022-0167.47.1.36

Lent, R. W., Brown, S. D., Schmidt, J., Brenner, B., Lyons, H., & Treistman, D. (2003). Relation of contextual supports and barriers to choice behavior in engineering majors: Test of alternative social cognitive models. *Journal of Counseling Psychology, 50*, 458-465. doi:10.1037/0022-0167.50.4.458

Leong, F. T., Hardin, E. E., & Gupta, A. (2011). Self in vocational psychology: A cultural formulation approach. In P. J. Hartung & L. M. Subich (Eds.), *Developing self in work and career. Concepts, cases, and contexts* (pp. 193-212). Washington, DC: American Psychological Association.

Leong, F. T. L., Kao, E. M-C., & Lee, S-H. (2004). The relationship between family dynamics and career interests among Chinese Americans and European Americans. *Journal of Career Assessment, 12*, 65-84. doi:10.1177/1069072703257734

Leung, S. A., Hou, Z.-J., Gati, I., & Li, X. (2011). Effects of parental expectations and cultural-values orientation on career decision-making difficulties of Chinese university students. *Journal of Vocational Behavior, 78*, 11-20. doi:10.1016/j.jvb.2010.08.004

Locke, E.A., & Latham, G.P. (1990). *A theory of goal setting and task performance.* Englewood Cliffs, NJ: Prentice Hall.

Ma, P. W., Desai, U., George, L. S., San Filippo, A. A., & Varon, S. (2014). Managing family conflict over career decisions: The experience of Asian Americans. *Journal of Career Development, 41*, 487-506. doi:10.1177/0894845313512898

Ma, P.-W. W., & Yeh, C. J. (2005). Factors influencing the career decision status of Chinese American youths. *Career Development Quarterly, 53,* 337-347. doi:10.1002/j.2161-0045.2005.tb00664.x

Markus, H, R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253. doi:10.1037/0033-295X.98.2.224

Nelemas, S. A., Branje, S. J., Hale III, W. W., Goossens, L., Koot, H. M., Oldehinkel, A. J., & Meeus, W. H. (2016). *Journal of Youth and Adolescence, 45*, 2049-2063. doi:10.1007/s10964-016-0503-5

O'Connor, B. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, 32*, 396-402. doi:10.3758/bf03200807

Oettingen, G., & Zosuls, K.M. (2006). Culture and self-efficacy in adolescents. In F. Pajares & T. Urdan. (Eds.), *Self-efficacy beliefs of adolescents. Volume V of adolescence and education* (pp. 245-265). Greenwich, CT: Information Age Publishing.

Onifade, E., Lee, J., Mennicke, A., Holmes, J. L., & Harris, L. (2016). Predicting delinquent behaviors for Korean youth using the parent-child relationship and career goal tension. *Journal of Ethnicity in Criminal Justice, 14*, 137-155. doi:10.1080/15377938.2015.1126698

Patil, V. H., Singh, S. N., Mishra, S., & Donovan, D. T. (2008). Efficient theory development and factor retention criteria: Abandon the 'eigenvalue greater than one' criterion. *Journal of Business Research, 61*, 162-170. doi:10.1016/j.jbusres.2007.05.008

Pina-Watson, B., Jimenez, N., & Ojeda, L. (2014). Self-construal, career decision self-efficacy, and perceived barriers predict Mexican American women's life satisfaction. *The Career Development Quarterly, 62*, 210–233.

Radhakrishnan, P., & Chan, D. K.-S. (1997). Cultural differences in the relation between self-discrepancy and life satisfaction. *International Journal of Psychology, 32*, 387 - 398.

Reise, S. P., Bonifay, W. E., & Haviland, M. G. (2013). Scoring and modelling psychological measures in the presence of multidimensionality. *Journal of Personality Assessment, 95*, 129-140. doi:10180/00223891.2012.725437

Rienties, B., Beausaert, S., Grohnert, T., Niemantsverdriet, S., & Kommers, P. (2012). Understanding academic performance of international students: The role of ethnicity, academic and social integration. *Higher Education, 63*, 685-700. doi:10.1007/s10734-011-9468-1

Rodriguez, A., Reise, S. P., & Haviland, M. G. (2016a). Applying bifactor statistical indices in

the evaluation of psychological measures. *Journal of Personality Assessment, 98*, 223-237. doi:10.1080/00223891.2015.1089249

Rodriguez, A., Reise, S. P., & Haviland, M. G. (2016b). Evaluating bifactor models: Calculating and interpreting statistical indices. *Psychological Methods, 21*, 137-150. doi:10.1037/met0000045

Rogers, M. E., Creed, P. A., & Praskova, A. (2016). Parent and adolescent perceptions of adolescent career development tasks and vocational identity. *Journal of Career Development,* 1-16. doi:10.1177/0894845316667483

Rojewski, J. W. (2005). Career aspirations. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling. Putting theory and research to work.* (pp. 131-154). New Jersey, NJ: John Wiley & Sons.

Rutherford, T. (2015). Emotional well-being and discrepancies between child and parent educational expectations and aspirations in middle and high school. *International Journal of Adolescence and Youth, 20*, 69-85. doi:10.1080/02673843.2013.7677.42

Salazar, M. (2015). The dilemma of combining positive and negative items in scales. *Psicothema*, *27*, 192-199. doi:10.7334/psicothema2014.266

Sawitri, D. R., & Creed, P. A. (2015). Perceived career congruence between adolescents and their parents as a moderator between goal orientation and career aspirations. *Personality and Individual Differences, 81*, 29-34. doi:10.1016/j.paid.2014.12.061

Sawitri, D. R., & Creed, P. A. (2017). Collectivism and perceived congruence with parents as antecedents to career aspirations: A social cognitive perspective. *Journal of Career Development, 44*, 530-543. doi:10.1177/0894845316668576

Sawitri, D. R., Creed, P. A., & Zimmer-Gembeck, M. J. (2013). The Adolescent-Parent Career Congruence Scale: Development and initial validation. *Journal of Career Assessment, 21*, 210-226. doi:10.1177/1069272712466723

Schoon, I., & Polek, E. (2011). Teenage career aspirations and adult career attainment: The role of gender, social background and general cognitive ability. *International Journal of Behavioral Development*, 35, 210-217. doi:10.1177/0165025411398183

Tang, M. (2002). A comparison of Asian American, Caucasian American, and Chinese college students: An initial report. *Journal of Multicultural Counseling and Development*, *30*, 124-134. doi:10.1002/j.2161-1912.2002.tb00484.x

Tannenbaum, M. (2003). The multifaceted aspects of language maintenance: A new measure for its assessment in immigrant families. *International Journal of Bilingual Education and Bilingualism*, *6*, 374-393.

Trafimow, D. (2015). A defense against the alleged unreliability of difference scores. *Cogent Mathematics*, *2*, 1064626.

Triandis, H. C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.

Tynkkynen, L., Nurmi, J. E., & Salmela-Aro, K. (2010). Career goal-related social ties during two educational transitions: Antecedents and consequences. *Journal of Vocational Behavior, 76*, 448-457. doi:10.1016/j.jvb.2009.12.001

van Prooijen, J.-W., & van der Kloot, W. A. (2001). Confirmatory analysis of exploratively obtained factor structures. *Educational and Psychological Measurement, 61*, 777-792. doi:10.1177/00131640121971518

van Rooij, E. C., Jansen, E. P., & van de Grift, W. J. (2018). First-year university students' academic success: The importance of academic adjustment. *European Journal of Psychological Education, 33*, 749-767. doi:10.1007/s10212-017-0347-8

Vogt, D. S., King, D. W., & King, L. A. (2004). Focus groups in psychological assessment: Enhancing content validity by consulting members of the target population. *Psychological Assessment, 16*, 231-243. doi:10.1037/1040-3590.16.3.231

Wang, L.-F., & Heppner, P. P. (2002). Assessing the impact of parental expectations and psychological distress on Taiwanese college students. *The Counseling Psychologist, 30*, 582-608. doi:10.1177/00100002030004006

Wang, Y., & Benner, A. D. (2014). Parent-child discrepancies in educational expectations: Differential effects of actual versus perceived discrepancies. *Child Development, 85*, 891-890. doi:10.1111/cdev.12171

Yang, J., & Shin, K. (2008). Vulnerability, resilience, and well-being of intermarriage: An ethnographic approach to Korean women. *Journal of International Women's Studies, 10*, 46-63. Retrieved from http://vc.bridgew.edu/jiws/vo110/iss2/5

Yeh, K. H., & Bedford, O. (2004). Filial belief and parent-child conflict. *International Journal of Psychology, 39*, 132-144.

Table 1

Factor Loadings for Discrepancies with Parent-Set Career Goals Scale; Sample A (N = 231)

Items	Factor 1: Ability	Factor 2: Choice	Factor 3: Enthusiasm
1. I don't think I can meet the requirements for the career my parents want for me.	**.93**	-.07	.03
2. I don't think I have what it takes to reach the career my parents think I should pursue.	**.83**	.06	.06
3. I am not as clever as I need to be to reach the career my parents want for me.	**.83**	.02	-.07
4. I am not sure that I have the ability to strive for the career my parents think is ideal for me.	**.82**	.04	-.04
5. I doubt that I am able to reach the career my parents think is best for me.	**.82**	-.03	-.06
6. My parents have a preferred career for me as they disagree with the choice I have made for myself.	-.01	**.93**	.07
7. My parents want me to change my own career choice to the career they really want for me.	-.08	**.82**	-.08
8. My parents insist that the career they want for me is better than my own career choice.	-.03	**.79**	.02
9. My parents believe that my own career choice is not good enough.	.01	**.77**	-.05
10. My parents encourage me to pursue a career that I don't really want.	.11	**.53**	.01
11. I am not motivated to reach the career my parents want me to have.	-.10	.04	**.95**
12. I am not enthusiastic about achieving the career my parents want for me.	.01	-.02	**.88**
13. I am not interested in making an effort towards the career my parents want me to have.	.10	-.02	**.78**
14. I am not seriously trying to achieve the career my parents want for me.	.01	-.03	**.73**
15. I am not working as hard as I could to achieve the career my parents want me to have.	.17	.12	**.63**
Eigenvalues	7.28	2.65	1.25
% variance explained	46.62	15.49	6.47

Note. Main loadings highlighted in bold.

Table 2

Model Fit Indices of the 3-Factor, 1-Factor, 2nd-Order Factor, and Bifactor Models for Sample B (N = 195)

Model	χ^2	*df*	χ^2/df	CFI	TLI	RMSEA	χ^2_{Diff}	AIC
3-factor	142.45***	75	1.90	.97	.97	.06	-	232.45
1-factor	1182.13***	90	13.14	.57	.50	.25	$p < .001$	1242,13
2nd order	111.10***	77	1.44	.99	.98	.05	$p < .001$	197.10
Bifactor	70.32***	64	1.10	.99	.98	.02	$p < .001$	182.32

Note. χ^2_{Diff} statistics refer to differences with 3-factor model. *** $p < .001$

Table 3

Summary Data for Sample B (N = 195)

Scale	*M*	*SD*	Range	α	1	2	3	4	5	6
1. Full scale	34.50	12.62	14-77	.92	-	.85***	.75***	.79***	-.76***	.40**
2. Subscale 1 (Ability discrepancies)	13.64	5.83	5-30	.95		-	.44**	.55**	-.56**	.49**
3. Subscale 2 (Choice discrepancies)	10.57	5.07	5-30	.88			-	.37**	-.62**	.26**
4. Subscale 3 (Enthusiasm discrepancies)	12.66	5.97	5-30	.94				-	-.65**	.17*
5. Adolescent-parent career congruence	54.36	10.15	17-72	.92					-	-.30**
6. Career distress	24.90	8.21	9-46	.87						-

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

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