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Young adults' perceived future employability: antecedents and consequences

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Abstract
Optimistic perception of one's future employability is critical for young people, being linked to motivation, behaviours, and well-being. We tested some antecedents and outcomes to perceived future employability (PFE) and their mediation effects. Responses ($N = 324$, 62.3% female, mean age 20.77 years) revealed that (1) career calling, strategies, proactivity, and encouragement were related to PFE, (2) PFE was related to career planning, performance, and satisfaction, and (3) PFE mediated all antecedents to satisfaction, but not to planning or performance.

Keywords Career calling · Career strategies · Proactivity

Résumé
La perception de l'employabilité future des jeunes adultes: Antécédents et conséquences. Une perception optimiste de l'employabilité future est essentielle pour

This research project is being conducted as part of the requirements of the Doctor of Philosophy degree, undertaken by William Gunawan, and supervised by Prof Peter Creed and A/Prof Ian Glendon. The research investigates (1) the perceptions that young adults have of their future, particularly their career future and (2) how these perceptions influence their current behaviour and well-being.

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les jeunes, étant liée à la motivation, aux comportements et au bien-être. Nous avons testé des antécédents et les résultats de la perception de l'employabilité future (PFE), ainsi que ses effets de médiation. Les réponses ($N = 324$, 62,3% de femmes, moyenne d'age 20,77 ans) ont révélé que (1) la vocation professionnelle, les stratégies, la proactivité et l'encouragement étaient liées à l'EFP, (2) l'EFP était liée à la planification de carrière, à la performance et à la satisfaction, et (3) l'EFP médiait la relation entre tous les antécédents et satisfaction, sauf pour la planification ou la performance.

Zusammenfassung

Die wahrgenommene zukünftige Beschäftigungsfähigkeit junger Erwachsener:Einflussfaktoren und Konsequenzen. Die optimistische Wahrnehmung der eigenen zukünftigen Beschäftigungsfähigkeit ist für junge Menschen entscheidend, da sie mit Motivation, Verhalten und Wohlbefinden zusammenhängt. Wir haben einige Einflussfaktoren und Konsequenzen der wahrgenommenen zukünftigen Beschäftigungsfähigkeit (PFE) und deren Vermittlungseffekte untersucht. Die Antworten ($N = 324$, 62,3% weiblich, Durchschnittsalter 20,77 Jahre) ergaben, dass (1) die Wahrnehmung einer Berufung, Strategien, Proaktivität und Ermutigung mit PFE zusammenhängen, (2) PFE mit Karriereplanung, Leistung, und Zufriedenheit zusammenhängt und (3) PFE zwischen allen Einflussfaktoren und Zufriedenheit vermittelt, aber nicht mit Planung oder Leistung.

Resumen

La percepción de la capacidad future de empleo de los adultos jóvenes: Antecedentes y consecuencias. La percepción optimista de las posibilidades de empleo a futuro es fundamental para los jóvenes, ya que está relacionada con la motivación, el comportamiento y el bienestar. Testamos algunos antecedentes y resultados de la percepción de la futura empleabilidad (PFE), y sus efectos de mediación. Las respuestas ($N = 324$, 62,3% mujeres, edad media 20,77 años) revelaron que (1) la vocación profesional, las estrategias, la proactividad y el estímulo estaban relacionados con la PFE, (2) la PFE estaba relacionada con la planificación de la carrera, el desempeño y la satisfacción, y (3) la PFE mediaba todos los antecedentes a la satisfacción, pero no a la planificación o el desempeño.

Introduction

A positive view of one's employability generates feelings of security (Berntson, 2008) and confidence (Vanhercke, De Cuyper, Peeters, & De Witte, 2014), provides motivation, fosters decision-making, planning, and goal-striving behaviours (Creed & Klisch, 2005), and is an important coping resource in times of job insecurity (Silla, De Cuyper, Gracia, Peiro, & De Witte, 2009). Self-perceived employability is also a protection mechanism in so far as it gives individuals confidence to remain in the workforce, if not necessarily in their current job (Forrier & Sels, 2003). This is an important consideration when employees increasingly seek to meet

their own needs by taking responsibility for their careers and not focusing only on their employer's needs (Weng & McElroy, 2012).

Most studies examining perceived employability have examined perceptions of current employability in adult workers (Berntson & Marklund, 2007; De Cuyper & De Witte, 2010; Rothwell & Arnold, 2007; Van der Heijde & Van der Heijden, 2005) or present-day employability in university students (Pool & Qualter, 2013; Pool, Qualter, & Sewell, 2014). Few studies have investigated perceived future employability in young adults who have not completed their formal education, but who are preparing for their future and are making decisions based on these perceptions of the future (Gunawan, Creed, & Glendon, 2018). We add to the current literature on perceived future employability (i.e., the individual's evaluation of the ease of commencing a desired occupational pathway after formal education; Gunawan et al., 2018) by testing a model with young adults who are yet to enter the full-time workforce, which examines both person (career calling, career strategies, proactivity) and situational antecedents (encouragement from others) and important career outcomes (career planning, perceived performance in training, career satisfaction) of perceived future employability.

Perceived employability

Berntson and Marklund (2007) defined perceived employability as an individual's perception of their own possibilities for maintaining existing, or finding new, employment (Vanhercke et al., 2014). It also has been identified as graduate employability (Pool et al., 2014), self-perceived employability (Rothwell, Herbert, & Rothwell, 2008), or simply employability (Harvey, 2001; Hillage & Pollard, 1998; Van der Heijde, 2014; Van der Heijde & Van der Heijden, 2005) and examined in diverse groups and contexts, including existing workers (Rothwell & Arnold, 2007), new job entrants (Forrier & Sels, 2003), workers in temporary employment (De Cuyper & De Witte, 2010), and ageing workers (Van der Heijde & Van der Heijden, 2005). Others have examined those not employed, such as students yet to graduate (Harvey, 2001), undergraduate students entering the labour market (Pool & Qualter, 2013; Pool et al., 2014), the unemployed (McArdle, Waters, Briscoe, & Hall, 2007), long-term unemployed (Koen, Klehe, & Van Vianen, 2013), people released from prison (Graffam, Shinkfield, & Hardcastle, 2008), and those with disabilities (Bricout & Bentley, 2000). Despite this research attention, the construct is "…in the relatively early stages of conceptual development", requiring more theoretical enlargement and conceptual clarity (Akkermans & Kubasch, 2017, p. 592).

Perceived future employability

While perceived employability focuses on the individual's present-day perception of their own employability, perceived future employability provides another dimension to the construct. From a future self's perspective, perceived future employability is the portrayal of the individual's occupational self at some time in the future (Cross & Markus, 1991; Ellen, Wiener, & Fitzgerald, 2012). Future selves can be

considered as "…the construction of prospective self-representations in terms of hopes and fears [that are] seen to provide a basis for anticipating future events, setting goals, planning, exploring options, making commitments, and subsequently guiding a developmental course" (Creed & Klisch, 2005, p. 252). From this, perceived future employability for young people can be considered as an "…appraisal of their own skills, experience, networks, personal traits, labour market knowledge, and institutional reputation after they complete their education and/or training and are ready to enter the labour market" (Gunawan et al., 2018, pp. 1–2).

According to Hillage and Pollard (1998), perceived employability falls in the pre-employment stage for young adults, during which they come to understand themselves in terms of who they are and what they want to be, as well as trying to comprehend the world of work and how to connect themselves with the workplace of the future. Little is known about contributing factors to perceived future employability and how perceptions of the future might affect the current career-related behaviours of young people. We address this gap by examining several potentially important antecedents (career calling, career strategies, encouragement of others, personal proactivity) and outcomes (career planning, current performance, satisfaction) to perceived future employability and by testing whether perceived future employability mediates these personal and situational variables and career outcomes.

Personal factors as antecedents of perceived employability

Both individual and situational factors are likely to influence a person's perceived employability, as both shape perceptions of current and future situations and prospects (Lazarus & Folkman, 1984; McQuaid & Lindsay, 2005; Rothwell et al., 2008; Rothwell et al., 2009). Individual factors identified as important contributors to perceived employability include knowledge and skills, social capital, abilities, and person-specific factors, such as biographics and dispositions (Berntson, 2008). Individual resources that have received the most attention are knowledge and skills, with research showing that individuals with higher formal education and better generic and labour market skills feel more secure and employable (Arnold & Staffelbach, 2012) and have better opportunities for obtaining new work (Berntson, 2008).

Some researchers have focused on labour market knowledge and skills (Kluytmans & Ott, 1999), while others have argued for the importance of generic skills as an influence on individual perceived employability (Harvey, 2001). Several authors have found that both generic and specific skills are important. Qenani, MacDougall, and Sexton (2014) showed that both generic skills, such as critical thinking and communication, as well as field-specific specialised skills enhanced employability (also see Van der Heijde & Van der Heijden, 2005). McQuaid and Lindsay (2005) included transferable skills, work experience, and formal education as antecedents to employability. Thus, general and specific knowledge and skills can be considered as important determinants of individual perceived employability.

Others have highlighted personal strategies and resources at an individual's disposal, such as social capital (Fugate, Kinicki, & Ashforth, 2004), strength and size of an individual's personal network (Berntson, 2008; McArdle et al., 2007),

and information interchange effectiveness across formal and informal contacts (Kluytmans & Ott, 1999). Some specific constructs addressed include adaptability and flexibility (Fugate et al., 2004; McQuaid & Lindsay, 2005; Van der Heijde & Van der Heijden, 2005), proactivity (McQuaid & Lindsay, 2005), self-efficacy (Berntson, 2008; Berntson, Näswall, & Sverke, 2010), career identity (Fugate et al., 2004), career management skills (Hillage & Pollard, 1998), commitment to change (Berntson et al., 2010), the willingness to learn and change (Van der Heijde & Van der Heijden, 2005), and movement capital (i.e., mobility willingness; Forrier & Sels, 2003; Kluytmans & Ott, 1999; McQuaid & Lindsay, 2005).

Demographic factors (e.g., age, gender, SES) are also considered to influence the development of perceived employability. McQuaid and Lindsay (2005) found that, compared with women, men have better options in the labour market and often are considered more employable (see also Flecker, Meil, & Pollert, 1998). Compared with older people, young people tend to have better prospects of finding a job (Van der Heijde & Van der Heijden, 2005), and those with higher educational levels and higher incomes do better (Arnold & Staffelbach, 2012).

Based on this literature that identified person-centred precursors to perceived employability, we included measures of career calling, career strategies, and proactivity along with age, gender, SES, and educational achievement as antecedents to perceived future employability. Career calling reflects the strength of a young person's future career goals (Wittekind, Raeder, & Grote, 2010), career strategies tap both self and other resources available to the individual to meet these career goals and enhance their career development (Greenhaus, Collins, & Shaw, 2003), and proactivity reflects the energy, drive, and agency related to progressing career goals (Tolentino et al., 2014).

Career calling

Career calling is considered a motivational force for tertiary students (Duffy & Sedlacek, 2007). As students have not yet started to live their calling, developing a calling for future work helps them to clarify their goals, gives direction and meaning to their strivings, and enhances their current well-being and satisfaction (Duffy, Douglass, Autin, & Allan, 2014). Previous studies have identified that calling is connected with more identity clarity, career self-efficacy (Dobrow & Tosti-Kharas, 2011), and career adaptability (Douglass & Duffy, 2015), which are important for goal striving and achievement (Praskova, Creed, & Hood, 2015) and have been identified as antecedents to perceived employability (Fugate et al., 2004; Van der Heijde & Van der Heijden, 2005; Vanhercke et al., 2014). Young people with a career calling are more positive about their future employability because they tend to have clearer and more ambitious career goals and have developed self-confidence and optimism about achieving these goals (Praskova et al., 2015). Consistent with these empirical considerations, we expected that career calling would be associated positively with perceived future employability in young adults.

Career strategies

Important personal factors are the strategies used to pursue a career direction (Creed & Hughes, 2013). Gould and Penley (1984) identified these seven career strategies for career goal development and achievement: creating career chances, expanding work involvement, self-promotion/self-presentation, pursuing career guidance, networking, opinion conformity, and enhancement of others. Individuals use different career strategies when pursuing career goals and might use different ones at different times. Individuals who actively employ career strategies have a better sense of control over their future careers, are better informed (Fugate & Kinicki, 2008), and are more likely to achieve their goals compared with those who do not engage in those behaviours (Fugate et al., 2004). Research has shown career strategies to be related to perceived employability in employed adults (Bencherqui, Janand, & Kefi, 2016) and university students (Creed & Hughes, 2013). Consistent with these findings, we expected that career strategies would be associated positively with perceived future employability.

Proactivity

Organisations typically value proactivity (i.e., perceiving relatively fewer situational constraints; Crant, 2000) in their employees (Bledow & Frese 2009). Individuals who are characteristically proactive, flexible, and open to new experiences tend to manage their careers more effectively than do those lower in proactivity (Van Vianen, Klehe, Koen, & Dries, 2012). For young adults, especially new graduates, proactivity is a valuable individual characteristic (Fuller, Kester, & Cox, 2010), which is supported by evidence that proactive individuals focus on gaining new skills and mastering new tasks (Fuller & Marler, 2009) and that increasing proactivity can improve both job-search effectiveness and long-term career success (Fuller & Marler 2009; Li, Liang, & Crant, 2010). Proactive individuals are also considered to be future oriented (Belschak, Hartog, & Fay, 2010), a valuable individual characteristic for graduates (Fuller, Kester, & Cox 2010).

Several studies have shown proactivity to be related to perceived employability. Tymon and Batistic (2016) found that "increased proactivity can lead to higher academic grades, which are used by employers in recruitment decisions, and so are important to students' employability" (p. 927). Other research has found proactivity to be a desirable employability characteristic (Fugate et al., 2004; Tymon, 2013), while Creed, Hood, and Hu (2017) found a positive relationship between proactivity and employability confidence. Consistent with these empirical considerations, we expected that proactivity would be positively associated with perceived future employability.

Situational factors as antecedents to perceived employability

Situational factors are the second important group of antecedents. Situational factors refer to influences from the individual's environment that might shape perceptions

of employability (Rothwell & Arnold, 2007). Berntson (2008) identified three main situational factors for employees: labour market structure, labour market opportunities, and organisational factors. For young people not yet in the workforce, important influences are effectiveness of teachers in imparting knowledge and generating attitudes related to employment as well as supportive relationships from parents, peers, and teachers (Cheung, Jin, & Cheung, 2018), all of which reflect different forms of career-related encouragement.

Career-related encouragement

An important consideration for young adults in relation to their future perceived employability is the encouragement they receive from important people around them regarding their career goals and how well they pursue them (Cheung et al., 2018; Hu, Hood & Creed, 2018). Encouragement is an important process through which individuals show support for one another (Beets, Cardinal, & Alderman, 2010). Cheung et al. (2018) found that relational support from parents, peers, and teachers was positively related to perceived employability, while Jones (2013) found that peer-to-peer support was an important component of employability enhancement for graduate students. Thus, we included this construct and expected that career-related encouragement from peers and family would be positively related to perceived future employability.

Outcomes for perceived future employability

To have a competitive benefit when applying for, obtaining, and succeeding at work when they finish their studies, students need to develop a positive view of their future employability while they study at university. This is important, as studies have shown that perceived employability is related to self-confidence, generic and specific professional skills, and academic performance (Álvarez-González, López-Miguens, & Caballero, 2017), overall health (Berntson & Marklund, 2007), work engagement (De Cuyper, Bernhard-Oettel, Berntson, De Witte & Alarco, 2008), career success (Rothwell & Arnold, 2007), life satisfaction (De Cuyper et al., 2008; De Cuyper, Mäkikangas, Kinnunen, & Mauno, 2012), work commitment, "employability activities" such as planning and engaging in development activities and expanding knowledge and work experiences (Van Dam, 2004), career satisfaction, and self-promotion (De Vos, De Hauw, & Van der Heijden, 2011). For consequences specific to perceived future employability, we included three important process variables related to goal setting and achievement: career planning, career satisfaction, and current performance.

Career planning

Career planning is defined as an individual's "engagement in the task of setting career goals and identifying one's developmental needs to reach their career goals" (Carson & Bedeian, 1994). It is important for young adults as it stimulates a focus

on career matters and contributes to the development of a career identity, which involves greater self-awareness and knowledge about educational and career choices (Stringer, Kerpelman, & Skorikov, 2011). When young adults have a positive view of their career future (e.g., have perceptions that they will be readily employable in the future), they will invest in preparing themselves for their future work (Álvarez-González et al., 2017) and will be more planful and considered when making decisions regarding the steps they need to take to reach their career goals (Van Dam, 2004). Engaging in development activities to expand occupational knowledge, gain work experience, and participate in career planning are considered "employability activities" (Van Dam, 2004), which result from holding positive attitudes towards future employability (Álvarez-González et al., 2017). Consistent with this, perceived employability has been shown to be associated with better planning and more optimism regarding the individual's future career (Praskova et al., 2015).

Task performance

Research on the relationship between employability and individual task performance has been conducted primarily using samples of employees and measuring job performance, defined "as the actions and behaviours of individuals that contribute to organizational goals" (Wong & Laschinger, 2013, p. 950). Research has found that perceived employability is positively related to job performance (Bozionelos et al., 2016; De Cuyper & De Witte, 2010; De Cuyper, Sulea, & Philippaers, 2014) and that employees with higher perceived employability were more capable at their job and were more motivated to expend additional effort at their work (Arocena, Núñez, & Villanueva, 2007).

For young adults in education, critical performance tasks relate to study, course participation, and completing assignments (Tymon & Batistic, 2016). Successful engagement with these tasks results in better educational outcomes and improved career rewards after graduation in terms of employment and salary (Butler, 2007). Academic performance is considered an important predictor of job performance, since good grades are an indicator of effort and ability (Brown & Campion, 1994). Based on these findings, we expected greater perceived future employability would be associated with higher academic task performance in young adults.

Career satisfaction

Career satisfaction refers to an individual's satisfaction with their current career or, more broadly, satisfaction with their career-related experiences and the progress being made towards their desired career (Rothwell & Arnold, 2007). Research has shown that perceived employability is positively related to career satisfaction in employed adults (De Vos & Soens, 2008; Rothwell & Arnold, 2007), graduate students (Pool & Qualter, 2013), and university students (Creed & Hughes, 2013). When individuals believe they are employable, it enhances feelings of security and independence, improves career-related motivation, and leads to improved performance, resilience, career-related success, and better life satisfaction (Berntson et al., 2010; De Vos & Soens, 2008; Pool & Qualter, 2013). However, to date, no studies

have tested the relationship between perceived future employability and career satisfaction in young adults.

Perceived future employability as mediator

Studies have found that perceived employability operates as a mediator in various relationships, including between levels of mentoring and job performance (Bozionelos et al., 2016), emotional self-efficacy and career satisfaction (Pool & Qualter, 2013), competency development and career success (de Vos, Hauw, & Van der Heijden, 2011), job insecurity and well-being (Silla et al., 2009), and burnout and depression (Qiao, Xia, & Li, 2016). Van Dam (2004) showed that people who were more willing to learn to improve their employability were more likely to initiate actions related to improving employability and to undertake more employability activities, such as planning. Perceived employability also reflects career-related personal capital that, when enhanced, leads to improved career-related outcomes (Arnold, 2011). In this study, we expected that perceived future employability would mediate the relationship between the personal and situational antecedents and the career-related outcomes of career planning, career satisfaction, and task performance.

Methods

Participants

Participants were 324 young adults (62.3% female, mean age 20.77 years, *SD* 5.70, range 17–30), who were mostly domestic students, with a small number of international students, recruited from one university in a large regional city on the east coast of Australia. As typical for Australian university students, the vast majority of the sample were Caucasian. On a scale of 1 (*very high achievement*) to 5 (*very limited achievement*), mean self-reported academic level of students in their final year of high school was 1.90 (SD .67), and mean, self-reported socioeconomic status, on a scale of 1 (*much better off than others*) to 5 (*much worse off than others*), was 2.90 (SD .89).

Materials

Perceived future employability

This was measured using the 24-item Perceived Future Employability Scale (Gunawan et al., 2018). The scale assesses six areas of future appraised skills, accumulated experiences, personal characteristics, networks, labour market knowledge, and reputation of educational institution attended. A sample item is: "When I complete my studies, I will have the relevant skills for the occupation I choose" (Likert-like response format was from 1 (*strongly disagree*) to 6 (*strongly agree*). Gunawan

et al. (2018) reported good internal scale reliability (α = .95) and supported validity by finding positive associations with measures of career ambition and university commitment and a negative association with career distress. Alpha for the current sample was .95.

Career calling

Career calling was measured with the two-item Brief (Presence) Calling Scale (Dik, Eldridge, Steger, & Duffy, 2012). The two items were: "I have a calling to a particular kind of work" and "I have a good understanding of my calling as it applies to my career" (Likert response format: 1 (*strongly disagree*) to 6 (*strongly agree*). Studies using this scale have found the two items to be highly correlated (> .75; Dik, Duffy, & Eldridge, 2009; Duffy & Sedlacek, 2007) and to be related positively to other career development indicators, including career decision self-efficacy, career decidedness, career decision comfort, and self-clarity. Alpha for the current sample was .91.

Career strategies

A seven-item Career Strategies Scale, which was derived from the 26-item Career Strategies Inventory (Creed & Hughes, 2013; Gould & Penley, 1984), assessed the level of career-related strategies (e.g., "To prepare for my future career, I am obtaining broadly based work experience wherever I can"; response format: 1 (*strongly disagree*) to 6 (*strongly agree*). Creed and Hughes (2013) reported sound internal reliability (α = .86), and validity was supported by using factor analysis and finding the scale related negatively to career compromise and career distress and positively to current perceived employability. Alpha for the current sample was .90.

Proactivity

Level of proactivity was measured with the six-item short form of the Proactive Personality Scale (Claes, Beheydt, & Lemmens, 2005). A sample item is: "I am always looking for better ways to do things" (response format: 1 (*strongly disagree*) to 6 (*strongly agree*). Claes et al. (2005) reported sound internal reliability (α = .79) and supported validity by finding a strong, positive correlation with the original 17-item proactivity scale. Alpha for the current sample was .87.

Career encouragement

Career encouragement was measured with the three-item Career Encouragement Scale (Tharenou, Latimer, & Conroy, 1994), which we modified for use with a young adult sample. A sample item is: "To what extent has your family encouraged you in your career development (e.g., provided support, encouragement, and advice)?" (Likert response format: 1 (*strongly disagree*) to 6 (*strongly agree*). Tharenou et al. (1994) reported an alpha of .80; validity has been supported by a positive

correlation with having a mentor and with the extent of mentor support. The current sample coefficient alpha was .71.

Career planning

The seven-item Career Planning Scale (Gould, 1979) was used to measure this construct. A sample item is: "I have a plan for my career" (response format: 1 (*strongly disagree*) to 6 (*strongly agree*). Gould (1979) reported an alpha of .89 and established construct validity using factor analysis and finding the construct to be positively related to career involvement and identity resolution. The current study alpha was .94.

Task performance

University task performance was measured with the seven-item Task Performance Scale ($\alpha = .93$; Goodman & Svyantek, 1999). A sample item was: "I am meeting the criteria for good performance" (response format: 1 (*strongly disagree*) to 6 (*strongly agree*). Goodman and Svyantek (1999) reported an alpha of .93 and provided construct validity evidence using factor analysis and by finding the scale correlated with measures of altruism and conscientiousness in expected directions. The current sample coefficient alpha was .91.

Career satisfaction

Career satisfaction was measured with the seven-item Career Satisfaction Scale ($\alpha = .88$; Greenhaus, Parasuraman, & Wormley; 1990). A sample item was: "I am satisfied with the success I am having in progressing my career direction" (response format: 1 (*strongly disagree*) to 6 (*strongly agree*). Previous sound internal reliability has been reported ($\alpha = .88$) and construct validity evidence was established through factor analysis and finding positive correlations with job discretion and supervisor support (Greenhaus et al., 1990). The current sample coefficient alpha was .90.

Procedure

The study was approved by the authors' University Human Research Ethics Committee. Students completed an online survey, which was advertised via a university-wide email sent to all students. As a reward for participation, students could enter a prize draw to win a $50 shopping voucher.

Results

Latent variable analyses (AMOS v.25.0) was used to test whether perceived future employability mediated associations between antecedent (calling, strategies, encouragement, proactivity) and outcome variables (planning, performance, satisfaction).

To reduce the number of parameters to be estimated, all scale items (apart from calling, which was represented by its two items) were parcelled to represent the latent variables (Landis, Beal, & Tesluk, 2000). Parcelling results in fewer and more stable parameters, improves reliability of measures, reduces the risk of violating assumptions of normality, and generates a more parsimonious model to be interpreted (see Little, Rhemtulla, Gibson, & Schoemann, 2013). To create the parcels, separate exploratory factor analyses were conducted for each scale; items were rank ordered according to their factor loadings and distributed to individual parcels using an item-to-construct balanced approach (Hau & Marsh, 2004).

A measurement model was first assessed to determine whether all latent variables could be independently represented by their parcels and items. Then, we assessed a structural model based on Figure 1 with pathways from all antecedents to the mediator (perceived future employability) and pathways from the mediator to all outcome variables. Finally, to assess mediation, we tested two further models: (1) a direct-effects model, which included pathways from all antecedents to all outcomes, and (2) an indirect-effects model, which included both direct (antecedents to outcomes) and indirect pathways (from antecedents to perceived future employability and from perceived future employability to outcomes). We used the AMOS bootstrapping procedure (with 1000 samples) to generate standard errors and 95% bias-corrected confidence intervals (CIs). Mediation is considered present when CIs for indirect effects do not include zero (Preacher & Hayes, 2008).

Testing the measurement model

To assess model fit with a sample > 250 with 21 observed variables, we used chi-square (χ^2; significant p value expected), normed chi-square (χ^2/df; < 3.0), Comparative Fit Index (CFI; .92 or better), and Root Mean Square Error of Approximation (RMSEA; < .07; Hair, Black, Babin, & Anderson, 2010). The measurement model produced acceptable fit statistics, $\chi^2(161) = 311.07$, $p < .001$, $\chi^2/df = 1.93$, CFI = .97, and RMSEA = .05 (95% CIs .05 to .06), with standardised item loadings ranging from .67 to .97 (all $p < .001$). Correlations among latent variables ranged from .21 to .59 (all $p < .001$) and were similar to the bivariate correlations (see Table 1).

Testing the structural model

As grade ($r = -.31$, $p < .001$) was associated moderately with performance (see Table 1), this variable was included in the hypothesised structural model as a covariate. Correlations with other demographics were trivial and therefore not controlled. The structural model (i.e., with pathways from calling, strategies, proactivity, and encouragement to employability and from employability to planning, performance, and satisfaction) had an acceptable fit to the data, $\chi^2(190) = 473.05$, $p < .001$, $\chi^2/df = 2.49$, CFI = .95, and RMSEA = .07 (95% CIs .60 to .76). There were significant paths from calling ($\beta = .24$, $p < .001$), strategies ($\beta = .17$, $p < .001$), proactivity ($\beta = .34$, $p < .001$), and encouragement ($\beta = .18$, $p < .001$) to employability and significant paths from employability to planning ($\beta = .46$, $p < .001$), performance

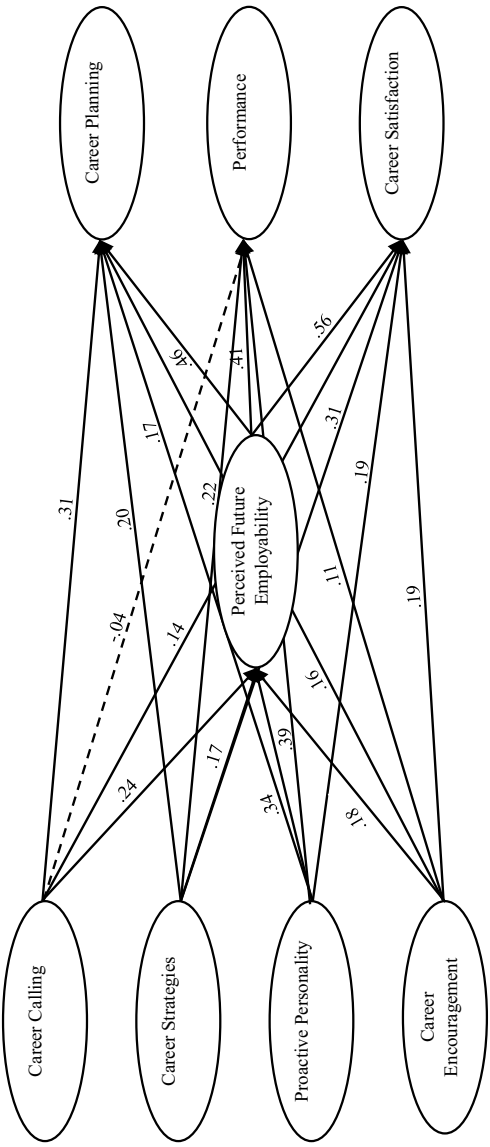

Figure 1 Person and environmental factors predict perceived future employability, which, in turn, is related to career planning, performance, and satisfaction

Table 1 Summary data, bivariate correlation (above diagonal), and latent variable correlation (below diagonal) ($N = 324$)

Variables	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
1. Career calling	9.27	1.93	–	.36**	.39**	.24**	.47**	.46**	.20**	.35**	.06	.08	− .08	− .06
2. Career strategies	29.61	6.08	.37***	–	.51**	.21**	.51**	.41**	.44**	.52**	− .10	.08	− .16**	.14*
3. Proactive personality	27.73	4.17	.43***	.53***	–	.23**	.52**	.40**	.49**	.40**	− .16**	− .08	− .08	.09
4. Career encouragement	13.30	3.33	.29***	.21***	.28***	–	.31**	.26**	.22**	.24**	− .14*	− .12*	− .14*	− .05
5. Perceived future employability	114.49	14.38	.49***	.47***	.58***	.38***	–	.42**	.41**	.52**	− .13*	− .01	− .13*	− .08
6. Career planning	26.20	5.91	.51***	.44***	.44***	.31***	.45***	–	.40**	.51**	− .08	.10	− .15*	.12**
7. Task performance	39.74	6.54	.43***	.45***	.54***	.26***	.43***	.43***	–	.55**	− .31**	.10	− .10	.11**
8. Career satisfaction	21.64	4.22	.39***	.50***	.50***	.30***	.54***	.54***	.59***	–	− .14*	.12*	− .16**	.08
9. Grade	1.90	0.67	–	–	–	–	–	–	–	–	–	.19**	.10	.06
10. Age	20.77	5.70	–	–	–	–	–	–	–	–	–	–	− .13*	.09
11. SES	2.90	0.89	–	–	–	–	–	–	–	–	–	–	–	− .05
12. Gender	–	–	–	–	–	–	–	–	–	–	–	–	–	–

*$p < .05$, **$p < .01$, ***$p < .001$

(β = .41, $p < .001$), and satisfaction (β = .56, $p < .001$); thus, all paths were significant (see Figure 1). These findings indicated that: (1) higher calling, more proactivity, better strategies, and more positive encouragement were associated with higher perceived future employability; (2) higher perceived future employability was associated with higher planning, performance, and satisfaction. Calling, strategies, proactivity, and encouragement accounted for 47.2% of the variance in perceived future employability, and perceived future employability accounted for 21.4% of the variance in planning, 25.3% in performance, and 31.4% in satisfaction.

Testing for mediation

First, when we assessed the direct-effects model (i.e., paths from all antecedents to all outcomes), we found significant paths from calling to planning (β = .31, $p < .001$) and satisfaction (β = .14, $p < .001$), but not to performance (β = − .04, $p = .49$). There were significant paths from strategies to planning (β = .20, $p < .001$), performance (β = .22, $p < .001$), and satisfaction (β = .31, $p < .001$) and from proactivity to planning (β = .17, $p < .001$), performance (β = .39, $p < .001$), and satisfaction (β = .19, $p < .001$) and from encouragement to planning (β = .16, $p < .001$), performance (β = .11, $p < .001$), and satisfaction (β = .19, $p < .001$). This analysis established that there were significant relationships between the antecedent variables and the outcome variables (see Figure 1).

Next, the indirect-effects model indicated four mediated pathways. These were from calling (CIs .03 to .11), strategies (CIs .01 to .10), proactivity (CIs .05 to .18), and encouragement (CIs .02 to .10) to satisfaction. The direct effect from strategies to satisfaction remained significant (β = .27, $p < .001$; total effect = .32, direct = .27, indirect = .05), indicating full mediation. The direct effects from calling (β = .09, $p = .14$; total effect .15, direct effect = .08, indirect = .07), proactivity (β = .03, $p = .80$; total effect = .18, direct = .08, indirect = .10), and encouragement (β = .11, $p = .10$; total effect = .15, direct = .10, indirect = .05) were not significant, indicating partial mediation. In summary, calling, strategies, proactivity, and encouragement were related indirectly to satisfaction (total effect of all variables was 40%).

Discussion

This study tested important personal and situational antecedents (calling, strategies, proactivity, encouragement) and outcomes (planning, performance, satisfaction) to perceived future employability and tested whether perceived future employability mediated these person and situational variables and career outcomes. As predicted, career calling, strategies, proactivity, and encouragement were associated with higher perceived future employability. This suggests that young people with a more well-developed career calling, who have better career strategies, are more proactive and receive encouragement from significant others higher have a more positive view of their future employability. These results are consistent with findings on correlates of perceived employability in employees for calling (Fugate et al., 2004), strategies

(Bencherqui et al., 2016), proactivity (Tymon, 2013; Tymon & Batistic, 2016), and encouragement (Cheung et al., 2018).

Theoretically, these findings suggest potential antecedents, both personal and situational variables, for perceived future employability. These are consistent with previous research showing that individual and situational factors are likely to influence adult employees' perceived employability, as both shape perceptions of current and future situations and prospects (McQuaid & Lindsay, 2005; Rothwell et al., 2008; Rothwell, Jewell, & Hardie, 2009). As we tested these correlates in the same study, each antecedent can be considered to explain unique, individual variance, and each should be rated as important. The four variables accounted for substantial variance in perceived future employability (47%). However, other antecedents might also be important, especially variables that potentially influence future views for young adults still in education. For example, when present and future selves are congruent rather than discrepant, young people are more planful, motivated, and satisfied (Reiff, Herschfield, & Quoidback, 2019), and the role of current employability status needs to be examined as a potential precursor. An important consideration for young people also might be the level and type of social support they receive at this stage in their lives. This needs to be examined in this context as it has been implicated in shaping future selves more generally (Hardgrove, Rootham, & McDowell, 2015).

There are practical implications regarding these antecedents. The results suggest that if young people's levels of career calling, strategies, proactivity, and encouragement from others are enhanced, this will lead to a more positive view of their employability after training, which should then contribute to flow-on effects of being more optimistic (Ellen et al., 2012). Interventions that seek to enhance career goal setting and goal progress strategies are available (Whiston, Li, Mitts, & Wright, 2017) and could be tailored to include a focus on future employability. Along with career-focused interventions, developing strategies for how to engage with significant others regarding the young person's future direction could also be valuable, as this would enhance social capital and potentially gain support for goals and how to achieve them.

Results also showed that perceived future employability was related to all proposed outcome variables (career planning, performance, satisfaction). The relationship between employability and career planning is in line with Van Dam's (2004) finding with adults who perceived that employability was associated with a number of "employability activities", such as planning, engaging in development activities, and expanding knowledge and work experiences. Perceived future employability was also related to higher task performance, which is consistent with findings with adult employees for employability and job performance (Bozionelos et al., 2016; De Cuyper et al., 2014) and reports that employees were more capable at their job and were more motivated to expend additional effort (Arocena et al., 2007). Perceived future employability was also related to higher satisfaction, which is again consistent with findings that perceived employability is positively related to career satisfaction in both employed adults (De Vos & Soens, 2008; Rothwell & Arnold, 2007) and graduate students (Pool & Qualter, 2013). This study has found further evidence for these relationships for young adults still in education.

These relationships add to the nomological net for perceived future employability and suggest positive outcomes for young adults in training when they have a positive view regarding gaining employment after finishing their studies. Devising interventions that provide opportunities for young people to imagine, develop, and clarify future occupational selves are likely to foster their motivation to expend energy on achieving these imagined futures (Hardgrove et al., 2015), specifically, from this study, related to strengthening career calling, task performance, and satisfaction.

Perceived future employability also mediated the relationships between the personal and situational antecedents (career calling, strategies, proactivity, encouragement) and career satisfaction, but not to career planning and task performance. First, this suggests that enhancing calling, strategies, proactivity, and encouragement improves perceived future employability, and some of this enhancement then is also associated with the improvement in career satisfaction. All antecedents also had a direct relationship with satisfaction, suggesting a well-being benefit when all are higher. Second, while perceived future employability did not mediate any of the antecedents with planning or performance, there were direct effects from these antecedents to planning and performance, suggesting benefits from having better calling, strategies, proactivity, and encouragement. However, as these benefits do not operate via employability, they have other potential pathways.

While student grade was associated meaningfully with task performance, all demographic variables had trivial associations with perceived future employability, suggesting that employability did not differ amongst groups of young adults or that particular groups were advantaged or disadvantaged. While this is not definitive, and studies will need to assess demographic variables as moderators to fully test them as boundary conditions (Baker, 2019), it does suggest that specific group-targeted interventions might not be needed to assist those who are pessimistic about their future employability.

Limitations

Although our study provided promising results regarding antecedents and outcomes of perceived future employability in young adults, some limitations need to be noted. First, participants were drawn from one urbanised educational institution and we had disproportionally more young women than men in our sample. Future studies need to sample young adults more widely and aim for a more equal gender balance so that results might be more widely generalised. Research has shown that men have more labour market advantages than women do (Quinn & Smith, 2018), and studies need to confirm that perceived future employability does not differ by gender, and, if not, how this translates into future behaviours and outcomes after training when young people have entered or are actively seeking to enter the labour force. We also acknowledge that our research was cross-sectional, and while we tested a plausible model supported by theory, causality has not been established. Longitudinal designs that can detect group and individual trajectories over time would allow stronger causal interpretations to be made.

This study has added to the employability literature by using an age-appropriate measure of perceived employability to identify potential antecedents and outcomes for young adults. It has also contributed by taking a theoretical approach that conceived of perceived future employability as a future projection of the self, in particular, a future self at a time in the future when an individual has finished their training/study (cf. Cross & Markus, 1991; Ellen et al., 2012). Knowledge of the antecedents and consequences of perceived future employability will add to understanding of influences and outcomes of perceived future employability in young adults, which could assist practitioners to help young adults prepare for their future employment.

Compliance with ethical standards

Conflict of interest The authors declare no conflict of interest with respect to the research, authorship, and/or publication of this article, and received no financial support for the study.

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