

# Exploring the Theoretical Link Between Career Choice Anxiety, Psychological Well-Being and Career Self-Efficacy: A Conceptual Framework

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The influence of COVID-19 has yet to be fully realised, however it is hypothesised that the global pandemic increased the anxiety response in adolescents. Another unintended consequence is the impact thereof on the world of work. Uncertainty relating to the job market, unemployment, career opportunities and expectations could further exacerbate perceived anxiety bringing about career choice anxiety. This article explores the theoretical link between career choice anxiety, psychological well-being and career self-efficacy in an effort to propose a conceptual framework that could be implemented as theoretical underpinning for the development of a psychometric stable measuring instrument. Psychological well-being has emerged as a public health anomaly especially for adolescents as some mental health concerns have an early onset around the age of 14. While, anxiety has been identified as prevalent in the age group. Furthermore, career self-efficacy could hypothetically moderate the link between career choice anxiety and psychological well-being. Assessment and possible interventions are pivotal in the context of COVID-19 as the intensity of fear and anxiety have increased in an already at risk age group with adverse consequences. Ascribed to the lacuna of empirical evidence relating to career choice anxiety and psychological well-being the proposed conceptual framework will not only contribute to the corpus of knowledge but could also be implemented to inform career guidance practice in future. Above and beyond the knowledge contribution the proposed conceptual framework will also have a societal impact addressing goal three of the sustainable development goals notably good health and well-being.

**Key words:** *COVID-19, anxiety response, psychological well-being, theoretical underpinning, psychometric stable measuring instrument*

## Introduction

COVID-19 is deemed the most disruptive pandemic in modern history which will transform societies profoundly and irreversibly (Varlik, 2020). South Africa headed the call from the World Health Organization declaring COVID-19 a global pandemic and subsequently a comprehensive lockdown was pronounced on the 26th of March 2020 (Spaul & Van der Berg, 2020). As a result of the containment measures UNICEF (2021) extrapolated that learners in South Africa is 75 percent to a full academic year behind normal educational development with between 400 000 and 500 000 learners reportedly exiting the school system. Spaul and Van der Berg (2020) elaborated on the impact of lockdown measures on learners within the South African context underscoring, for example learning loss, malnutrition, depression and impairment in terms of cognitive development. A recent study conducted in Australia revealed that adolescents' depressive symptoms, anxiety and life satisfaction deteriorated as a result of pandemic lockdown measures (Magson et al., 2021). Similar results were reported in a study conducted in Germany with reference to a decrease in autonomy and psychological well-being and an increase in anxiety and depression (Parola et al., 2020). Cohen et al. (2021) expound that the cumulative literature suggests that the global pandemic increase anxiety responses in adolescents and pose a threat to their mental health specifically those with early life stress.

Research suggest that anxiety is the most prevalent metal health concern amongst adolescents, while the body of knowledge underscore vocational decision-making and indecision in relation thereto (Jonck et al, 2019). Mahmud et al. (2021a) hypothesised that ascribed to the COVID-19 pandemic, the future workforce is experiencing career choice anxiety resulting in long-term negative effect on psychological well-being. Correspondingly, Maftei et al. (2021) opine that COVID-19 has significant adverse consequences on adolescents' career choice anxiety in response to uncertainty relating to the job market, career possibilities and expectations. Consequently, growing uncertainty related to job-security and employment especially in light of the current COVID-19 pandemic necessitate exploring the theoretical link between career choice anxiety, psychological well-being and career self-efficacy. To date similar research within the South African context could not be identified.

## Problem statement

Adolescence is characterized by significant social, physical and psychological changes (Aggarwal et al., 2020). Carneiro et al. (2019) noted that 10 to 20 percent of adolescents' experience mental illness world-wide with early onset around the age of 14. Depression, for example is often underdiagnosed as it is assumed that all adolescents experienced depression to some extend (Aggarwal et al. 2020). Sharma and Chandiramani (2021) noted that adolescents seem to be at a greater risk for problem behaviour associated with lower levels of adjustment and psychological well-being. Psychological well-being has been proposed as a mediating factor with reference to psychological disorders (Carneiro et al. 2019). Van

Schalkwyk and Wissing (2010) opine that empirical evidence relating to psychosocial well-being of adolescence in the South African context is sparse given the exposure to abuse, violence and exploitation. Moreover, the impact of COVID-19 on the psychological well-being of adolescents has emerged as a novel research focus. UNESCO (2020), for example advised that the impact of confinement measures ascribed to the global pandemic on the psychological well-being of learners i.e. adolescents should be assessed. Another aspect that has been severely impacted by the occurrence of COVID-19 is the world of work. Hodder (2020) reflecting on the work of Lewis and Bell (2019) noted that debate around the future of work and the impact of artificial intelligence on occupations have increased in the recent past and further emphasized by the COVID-19 pandemic. Vocational environments require a skill set that exceed knowledge for employability and career development (Jonck et al. 2019). Hence, Mares et al. (2021) explain that career decision-making becomes increasingly difficult as a result of the global pandemic taking into consideration job nature as well as the balance between passion and risks.

The study of career decision-making has a robust body of literature and assessment tools underscoring, for example career exploration, career maturity and career adaptability (Bubany, 2011). However, a paucity of studies investigate the underlying emotive response caused by career decision-making. Career choice anxiety is defined as the level of reported anxiety that is associated with the process of career decision-making (Jonck et al. 2019). Chartrand and colleagues (1990) noted that career choice anxiety is an important personal-emotional facet that inhibits the career decision-making process. Moreover, to date there is no measuring instrument that focus specifically on career choice anxiety nationally and internationally and the prevalence is also not known. Al-Kalbani and Salleh (2010) developed a Career Decision-Making Indicator in Oman measuring decidedness, comfort, career choice anxiety, external barrier, need for career information, readiness, career salience and inconsistent information. Yilman and Gunduz (2018) reporting on a follow up study conducted in Turkey based on the scale of career anxiety the authors developed in 2016 expounded that the scale consists of 5 items underscoring family effect and 9 items which focus on career choice within the career development process. Kaur and Kaur (2017) conducted a study concentrating on a student sample with learning disabilities focusing on career choice anxiety in India. In the mentioned study the State Trait Anxiety Inventory developed by Spielberger in 1983 was utilized. Park et al. (2019) studied career choice anxiety in Korea also utilizing Spielberger's State Trait Anxiety Inventory. Thus, to date no measuring instrument measure career choice anxiety as the State Trait Anxiety Inventory include general statements, for example "I am tense", "I am relaxed", and "I feel calm".

Another lacuna in the body of knowledge relates to possible coping mechanisms when experiencing career choice anxiety. A hypothesized construct that would presumably be a coping mechanism is career self-efficacy which is the internalized views supporting whether or not the learner is able to successfully accomplish behaviours that would lead to desired

outcomes (Jonck et al., 2019). Foretasted contention is based on the supposition that career certainty functions as a dimension of career decision-making status with career self-efficacy as a mediating factor (Jemini-Gashi et al, 2019). Thus, career indecision theoretically would also be a dimension of career decision-making status with career self-efficacy as a mediating factor. Furthermore, there is a positive association between career indecision and career choice anxiety (Guy et al., 2003).

Against the stated background, career choice anxiety linked with career self-efficacy is largely a novel research terrain internationally and especially in the South African context. Moreover, research suggests that psychological well-being of adolescents has not been research extensively in the South African context especially in light of the current global pandemic. Mares et al. (2021) citing Mahmud et al. (2021a) emphasized that career counselling is pivotal in the context of COVID-19 as the intensity of fear and anxiety have increased in an already at risk age group which could adversely impact some personality types.

### **Rationale and significance**

The COVID-19 pandemic has radically impacted work and employment (Hodder, 2020). Moreover, anxiety related to the pandemic hypothetically stimulate career choice anxiety (Mahmud et al., 2021b). Furthermore, career choice anxiety theoretically has a long-term negative impact on psychological well-being (Mahmud et al., 2021a). Research suggest that anxiety is the most prevalent mental health concern amongst adolescents, while the body of knowledge mostly give emphasis to vocational decision-making and indecision in relation thereto (Jonck et al., 2019). Besides, Jonck et al. (2019) in a qualitative study reported the prevalence of career choice anxiety in a sample Grade 10 learners to be 51.42% pre-COVID-19. The contention of the research reported on is that ascribed to the growing uncertainty related to job-security and employment especially in light of the current pandemic the prevalence of career choice anxiety has increased which negatively impact on psychological well-being. Ascribed to the lacuna of empirical evidence relating to career choice anxiety and psychological well-being of adolescents the proposed conceptual framework will contribute to the corpus of knowledge. The knowledge impact of the proposed framework in addition relates to the establishment of a theoretical underpinning for the development of a psychometric stable questionnaire measuring career choice anxiety and adolescent psychological well-being which is a novel research endeavour nationally and internationally. It is envisioned that the measuring instrument will inform career guidance practice in future. Above and beyond the knowledge contribution and application the proposed conceptual framework will also have a societal impact addressing goal three of the sustainable development goals i.e. good health and well-being.

## Defining the constructs

The key variables of the proposed conceptual framework subsume psychological well-being, career choice anxiety and career self-efficacy which will be briefly introduced in the sequential section.

Psychological well-being is concerned with perceived fulfilment across various domains including home life, school, managing situations and interpersonal relationships (Davids et al. 2017). Matud et al. (2019) defined psychological well-being as living life in a complete and satisfactory manner centring on individual development and self-realization. Moreover, psychological well-being is described as a state that is characterized by a sense of coherence, life satisfaction, fortitude, coping and psychological resilience to mention a few (Pienaar et al., 2006). A multi-dimensional perspective of psychological well-being has been proposed and well-known as the Ryff's model, which include autonomy, environmental mastery, personal development, positive relationships with others, purpose and self-acceptance (Ryff & Keyes, 1995).

Career choice anxiety can be defined as the level of reported anxiety that is associated with the process of career decision-making (Chiesa et al., 2016). As such, career choice anxiety refers to anxiety experienced when a learner has difficulty with a career choice and unable to commit to a particular course of action (Park et al., 2019, citing Jung et al., 2015). Kaur and Kaur (2017) reflecting on previous research defined career choice anxiety as affective distress associated with career decision-making and conceptualized as a significant personal-emotional factor inhibiting career decision-making. Jonck et al. (2019) reflecting on the work of Corkin et al. (2008) noted that career choice anxiety refers to difficulty with processing and acting on career-related information as a result of, *inter alia*, a lack of knowledge or skills to make a career decision.

Career self-efficacy can be defined as an individual's perception of the innate ability to organize and implement a modus operandi related to a desired career (Jemini-Gashi et al., 2019). Makki et al. (2015) defined career self-efficacy as a sense of self-assurance in the ability to perform actions related to career choices. While, Park et al. (2019) defined career self-efficacy as the extent to which the individual has belief or confidence in innate career decision-making ability. Career self-efficacy is positively associated with career aspiration (Tahira et al., 2019) and have an impact on individual interests that eventually determine career choice (Jonck & Swanepoel, 2019). As such, Carpenter (2014) opine that career self-efficacy will determine whether a particular task (i.e. career) will be selected or avoided.



## Literature review

Psychological well-being can be described as healthy mental functioning and optimization of individual innate potential. Hence, psychological well-being is a mental state characterised by self-acceptance, healthy interpersonal relationships, self-directed behaviour, agency (viz. ability to control or adapt to the environment) also referred to as environmental mastery and life purpose (Fithria et al., 2018). Davids et al. (2017) expounded on previous research noted that approximately 20% of adolescents' experience mental health concerns annually resulting in strained psychological well-being. Moreover, psychological well-being has emerged as a public health concern (Davids et al. 2017), since the probability of maintaining mental health into adulthood is significant (Pound & Campbell, 2015). Matud et al. (2019) explained that psychological well-being is pivotal for physical health ascribed to the regulation of various physiological and neurological systems. Furthermore, research suggest psychological well-being predicts physical activity, less smoking, improved sleep patterns and less psychosomatic symptoms (Garcia et al., 2012). Hence, psychological well-being promotes a healthy lifestyle. Trudel-Fitzgerald et al. (2019) reported that psychological well-being is associated with lower disease and mortality risk.

Psychological well-being can be investigated from two perspectives, namely a hedonic approach that perceive psychological well-being as the presence of positive affect in the absence of negative affect. Alternatively, a eudemonic stance can be adopted that perceive psychological well-being as a consequence of optimal psychological functioning through which an individual develops inherent potential (Guerra-Bustamante et al., 2019). In the same vein, Govender et al. (2019) assert that psychological well-being can be conceptualised in terms of a hedonic tradition emphasising constructs such as happiness, positive effect, low negative effect and life satisfaction or a eudemonic tradition highlighting psychological functioning and human development through challenges, growth and life purpose. In the research reported on last mentioned stance will be adopted i.e. psychological well-being as optimal psychological functioning and impetus to develop intrinsic career-related potential. In line with the eudemonic approach a multidimensional model consisting of six facets underscoring self-actualization ideally would be implemented as theoretical underpinning for future research endeavours. The six facets include autonomy, environmental mastery, personal growth, positive interpersonal relationships, purpose in life and self-acceptance (Guerra-Bustamante et al., 2019). Ryff's six factor model is one of the most well-known psychological well-being theories, which evaluates individual psychological functioning in response to life demands premised on a eudemonic notion of self-actualization (Blasco-Belled & Alsinet, 2021).

Within the South African context, Govender et al. (2019) conducted a systematic review to establish the prevalence of studies underscoring psychological well-being of adolescents. Results identified 28 published research articles on psychological well-being of pubescent respondents aged between 10 and 24 years between 2000 and 2016. Three identified studies (see, for example Edwards et al., 2004; Liebenberg & Roos, 2008; Steyn & Roux, 2009)



utilized the eudemonic stance operationalised by means of the six facets, *inter alia*, autonomy, environmental mastery, personal growth, purpose in life, positive relations with others and self-acceptance (Govender et al., 2019). Edwards et al. (2004) studied the psychological well-being of university students. Liebenberg and Roos (2008) critically reflected on preadolescent leaders. While, Steyn and Roux (2009) studied Tae Kwon do, hockey and non-sport group respondents underscoring aggression frequency. Moreover, 20 of the studies included in the systematic review were quantitative in nature howbeit most of the measuring instrument lack cross-cultural validation giving rise to the possibility of measurement bias and the context of the studies were also not in relation with career psychology (Govender et al., 2019). From a career or learning standpoint, Pienaar et al. (2006) opine that changes to the world of work could influence the psychological well-being of adolescents howbeit the study investigated the relationship between conservatism and psychological well-being. Moreover, Cilliers and Flotman (2016) noted that psychological well-being of students is seen as a contributory factor towards having a meaningful, enjoyable and productive learning experience. Hence, research exploring the link between psychological well-being and career choice anxiety mediated by career self-efficacy within the South African context could not be identified.

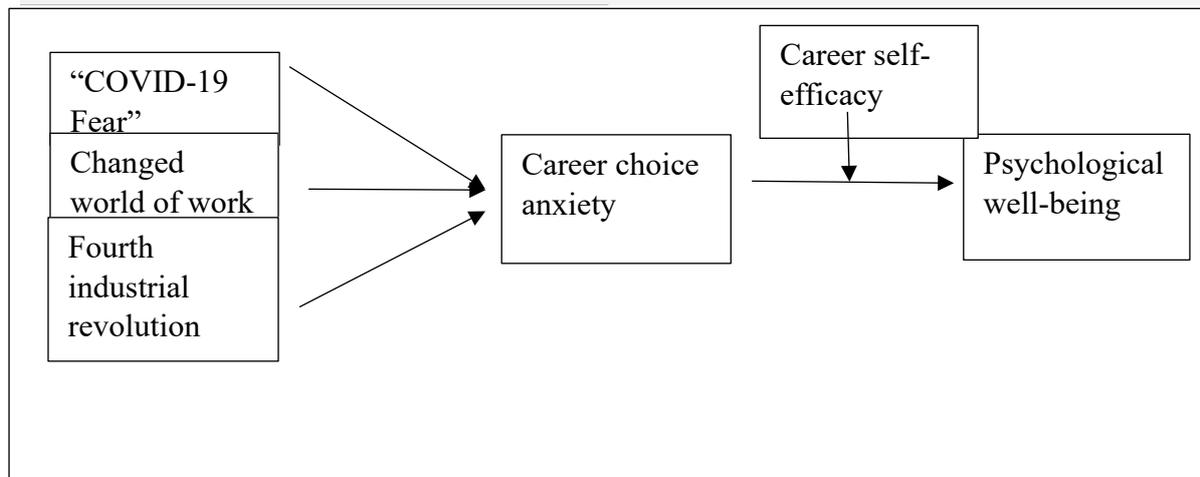
Anxiety can be defined as the anticipated expectation of a future danger or negative event, accompanied by feelings of apprehension, uncertainty, fear and alarm directed towards an experience the individual perceive or is helpless against (Perrotta, 2019). Rahmadani and Sahrani (2021) reflecting on the corpus of knowledge define anxiety as a feeling or affect coupled with resultant discomfort that is followed by physical sensations that caution the individual against impending dangers. Takil and Sari (2021) noted that one of the biggest causes of anxiety at present is career anxiety. Career anxiety can be defined as the anxiety embedded in a career problem when facing the career development process (Pisarik et al., 2017). The career problem is not delineated as per the previous definition. On the other hand, career choice anxiety is defined as the level of reported anxiety that is associated with career decision-making viz. career selection (Jonck et al., 2019). Yilman and Gunduz (2018) opine that career choice anxiety is a dimension of career anxiety as it relates to career indecision. Furthermore, career decision-making is the manner in which learners make career and educational decisions by examining, for example precursors that impede career choice resulting in career indecision and the internalised views supporting whether the learner is able to successfully accomplish behaviours that will give rise to the desired outcome (viz. career self-efficacy) according to Savickas (2000). Hence, adolescents (viz. in the South African Context Grade 9 learners) are expected to make decisions about a career field, occupational or higher education with lifelong consequences that might cause career choice anxiety influencing psychological well-being amongst other (Jonck et al., 2019; Yilmaz & Gunduz, 2018).

Self-efficacy can be defined as an individual's confidence and beliefs relating to innate strengths and capabilities and is the impetus for performance in any given behaviour. As such, self-efficacy has been linked to academic performance, ambition and achievement (Tahira et

al., 2019). The Social Cognitive Career Development Theory (SCCT) an extension of the original self-efficacy expectation theory by Bandura is often used as theoretical underpinning (Jonck, 2014). The theory proposes that individual background and characteristics influence learning experiences and self-efficacy. Self-efficacy, in turn, fosters interests and outcome expectations, which eventually determine career choice (Lent et al., 2000 cited in Jonck, 2014). Likewise, Betz (2007) expound that self-efficacy sources of information (i.e. background and learning experiences) lead to the development of self-efficacy for a given domain. Self-efficacy sequentially influences three major career-related outcomes including career choice or avoidance, level of performance and persistence. Hence, learners form enduring interests in activities when they perceive themselves as competent or capable and anticipate that performing said interests will produce valued outcomes (Jonck, 2014). Abe et al., (2021) noted that self-efficacy convictions determine consistent goals, confidence in the ability to achieve goals and activate the achievement of a given career task. Last mentioned authors conducted a South African study reporting on the link between career self-efficacy and career outcome expectations of university students. Results support the theoretical supposition that self-efficacy predicts outcome expectations and that learning experiences and background statistically significantly influence both constructs (Abe et al., 2021). Dabula and Makura (2013) reported in the South African context that learner's career decision-making ability is hampered by a lack of self-efficacy.

### **Proposed conceptual framework**

Based on the discussion thus far the following hypothesized conceptual framework is put forward (see Figure 1 below). It is hypothesized that ascribe to growing uncertainty relating to job-security and employment especially in light of the current COVID-19 pandemic and the changing world of work there is an increase in the perceived career choice anxiety of adolescent learners negatively impacting their psychological well-being. Moreover, it is the contention of the research that career self-efficacy mediates the relationship between career choice anxiety and psychological well-being.



**Figure 1: Conceptual framework exploring the link between career choice anxiety, psychological well-being and career self-efficacy’**

### Way forward

To test the model a self-constructed questionnaire was developed in accordance with the proposed conceptual framework. The questionnaire consists out of five sections. Section A ascertain adolescents’ biographical information e.g. gender, age, home language, socio-economic status, disability, dependents and home environment. Last two, namely dependents and home environment might statistically significantly influence perceived anxiety. Section B Measures Career Choice Anxiety and consist out of 21 items on a Likert-Scale ranging from never to always. Items include, for example “*I feel worried, when thinking about the career path I have decided upon*”; “*I feel agitated when other learners talk about their future career plans*”; “*I feel secure that I have selected the appropriate subjects*” and “*I am tense about my subject-career link*”. The State Trait Anxiety Inventory was bridged to make it more applicable to the conceptual framework under investigation. Section C measures career self-efficacy on a Likert-Scale ranging from no confidence to very confident and consist out of 21 items. Items included, for example: “*How confident am I to use the internet to find information about occupations that interest me*” and “*How confident am I to select one occupation from a list of potential occupations I am considering.*” The sub-scale was previously validated by Jonck (2014) with a mean of 2.19, STD of 0.855 and alpha coefficient of 0.86.

Section D measures psychological well-being and consist out of 41 items on a Likert-Scale ranging from strongly disagree to strongly agree. The psychological well-being sub-scale was adapted from the seminal Psychological Well-being Scale (PWBS) developed by Ryff for adult usage. Items include, for example “*I don’t have a concrete idea of what I’m trying to accomplish in life (e.g. my goals and vision)*”; “*I am good at managing the many responsibilities I have, for example sports, school, family and friendships*” and “*When I compare myself to other learners, I feel good about who I am*”. The questionnaire measure six



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dimensions of psychological well-being, *inter alia*, autonomy, environmental mastery, personal development, positive relationship with others, purpose and self-acceptance (Ryff & Keyes 1995). The last section consists out of 5 open-ended questions where learners can describe their anxiety or the lack thereof using narration thus own words.

A pilot study will be conducted to determine the psychometric properties of the questionnaire specifically the reliability and construct validity. Face validity has been determined by means of inputs received from five HPCSA board certified psychologists. Thereafter, it is envisioned that the main study will be implemented in three provinces notably North-West, Free State and Western Cape.



## REFERENCES

- Abe, E., Chikoko, V., & Lubinga, S.N. (2021). The link between career outcomes expectancy and career decision-making self-efficacy of STEM students in a South African university. *Perspectives in Education*, 39(2), 52-66.
- Aggarwal, P., Raval, V.V., Chari, U., Ramar, V., Sreenivas, K.K., Krishnamurthy, S., & Viswesvariah, A.M. (2020). Clinician's perspectives on diagnostic markers for depression among adolescents in India: an embedded mixed-method study. *Culture Medicine Psychiatry*, 45(2), 163-192.
- Al-Kalbani, M.S., & Salleh, A. (2010). Developing a career decision-making indicator (CDMI). *Procedia Social and Behavioural Sciences*, 5, 2146-2153.
- Betz, N. (2007). Career self-efficacy: exemplary recent research and emerging directions. *Journal of Career Assessment*, 15(4), 403-422.
- Blasco-Belled, A., & Alsinet, C. (2021). The architecture of psychological well-being: a network analysis study of the Ryff psychological well-being scale. *Research Square*, 3, 1-16. <https://doi.org/10.21203/rs.3.rs-402554/v1>.
- Bubany, S.T. (2011). *Career decision-making competence: formulation and testing of a measurement model*. Unpublished PhD Dissertation, University of Minnesota.
- Carneiro, L.S.F., Fernandes, H.M., & Vasconcelos-Raposa, J. (2019). Psychological well-being in adolescence. *Poster presented at CIDESD International Congress*, Maia.
- Carpenter, D.M. (2014). *Expectations, aspirations, and achievements among Latino students of immigrant families' family factors and the educational success of children*. London, England: Routledge.
- Chartrand, J.M., Robins, S.B., Morrill, W.H., & Boggs, K. (1990). *Career factors Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Chiesa, R., Massei, F., & Guglielmi, D. (2016). Career decision-making self-efficacy change in Italian high school students. *Journal of Counselling and Development*, 94(2), 210-224. Doi:10.1002/jcad.12077.
- Cilliers, F., & Flotman, A.P. (2016). The psychological well-being manifesting among master's students in Industrial Psychology. *South African Journal of Industrial Psychology*, 42(1), a1323.
- Cohen, Z.P., Cosgrove, K.T., DeVille, D.C., Akeman, E., Singh, M.K., White, E., Stewart, J.L., Aupperle, R.L., Paulus, M.P., & Kirlic, N. (2021). The impact of COVID-19 on adolescent mental health: preliminary findings from a longitudinal sample of healthy and at-risk adolescents. *Frontiers in Paediatrics*, 9, 622608.
- Corkin, D., Arbona, C., Coleman, N., & Ramirez, R. (2008). Dimensions of career indecision among Puerto Rican college students. *Journal of College Student Development*, 49, 1-15.
- Dabula, P., & Makura, A.H. (2013). High school student's perception of career guidance and development programmes for university access. *International Journal of Educational Science*, 5(2), 89-97.



- Davids, E.L., Roman, N.V., & Kerchhoff, L.J. (2017). Adolescent goals and aspirations in search of psychological well-being: from the perspective of self-determination theory. *South African Journal of Psychology*, 47(1), 121-132.
- Edwards, S.D., Ngcobo, H.S.B., & Pillay, A.L. (2004). Psychological well-being in South African university students. *Psychology Reports*, 95, 1279-1282.
- Fithria, F., Tahlil, T., Adlim, A., Jannah, S.R., Darmawati, D., & Armada, C.D. (2018). Psychological well-being amongst adolescent smokers. *Proceeding of AIC: Health and Life Sciences*, 8(1), 25-33.
- Garcia, D., Archer, T., Moradi, S., & Andersson-Arntén, A. (2012). Exercise frequency, high activity positive affect and psychological well-being: beyond age, gender and occupation. *Psychology*, 3(4), 328-336.
- Govender, K., Bhana, A., McMurray, K., Kelly, J., Theron, L., Meyer-Weitz, A., Ward, C.L., & Tomlinson, M. (2019). A systematic review of the South African work on well-being of young people (2000-2016). *South African Journal of Psychology*, 49(1), 52-69.
- Guay, F., Senécal, C., Gauthier, L., & Fernet, C. (2013). Predicting career indecision: a self-determination theory perspective. *Journal of Counselling Psychology*, 50(2), 165-177.
- Guerra-Bustamente, J., Leon-del-Barco, B., Yuste-Tosina, R., Lopez-Ramos, V., & Mendoza-Lazaro, S. (2019). Emotional intelligence and psychological well-being in adolescents. *International Journal of Environmental Research and Public Health*, 16, 1720. <https://doi.org/10.3390/ijerph16101720>.
- Hodder, A. (2020). New technology, work and employment in the era of COVID-19: reflecting on legacies of research. *New Technology, Work and Employment*, 35(3), 262-275.
- Jemini-Gashi, L., Duraku, Z.H., & Kelmendi, K. (2019). Associations between social support, career self-efficacy, and career indecision among youth. *Current Psychology*, <https://doi.org/10.1007/s12144-019-00402-x>.
- Jonck, P. (2014). Validation of a measuring instrument to ascertain the effectiveness of career guidance provided as part of the subject Life Orientation. *Academic Journal of Interdisciplinary Studies*, 3(6), 359-368.
- Jonck, P., & Swanepoel, E. (2019). Investigating career guidance implementation between historically advantaged and disadvantaged schools. *The Journal for Transdisciplinary Research in Southern Africa*, 15(1), a637. <https://doi.org/10.4102/td.v15i1.637>.
- Jonck, P., Swanepoel, E.H., & De Coning, R. (2019). Exploring career choice anxiety of Grade 10 learners in the Free State Province, South Africa. *Journal of Educational Studies*, 18(1), 64-81.
- Jung, H., Park, I.J., & Rie, J. (2015). Future time perspective and career decisions: The moderating effect of affect spin. *Journal of Vocational Behaviour*, 89, 46-55.
- Kaur, S., & Kaur, K. (2017). Career decision making and career choice anxiety in students with learning disabilities. *International Research Journal of Commerce, Arts and Science*, 8(4), 133-142.
- Lent, R.W., Brown, S.D., & Hackett, G. (2000). Contextual support and barriers to career choice: a social cognitive analysis. *Journal of Counselling Psychology*, 47, 36-49.



- Lewis, P., & Bell, K. (2019). Understanding the UK's productivity problems: new technological solutions or a case for the renewal of old institutions? *Employee Relations*, 41(2), 296-312.
- Liebenberg, J., & Roos, V. (2008). Preadolescent leaders: Critical reflections from a well-being perspective. *South African Journal of Education*, 21, 197-210.
- Maftai, M., Holman, A.C., & Patrausanu, A.M. (2021). Are you scared of what comes next? Students' future career anxiety during COVID-19 pandemic. *Psihologija*, 55(00), 1-30.
- Magson, N.R., Freeman, J.Y.A., Rapee, R.M., Richardson, C.E., Oar, E.L., & Fardauly, J. (2021). Risk and protective factors for prospective changes in adolescent mental health during COVID-19 pandemic. *Journal of Youth and Adolescents*, 50(1), 44-57.
- Mahmud, M.S., Rahman, S.M., Ul-Hasan, M., & Islam, A. (2021b). Does 'COVID-19 phobia' stimulate career anxiety? Experience from a developing country. *Heliyon*, 7, e06346. <https://doi.org/10.1016/j.heliyon.2021.e06346>.
- Mahmud, M.S., Talukdes, M.U., & Rahman, S.M. (2021a). Does fear of Covid-19 trigger future career anxiety? An empirical investigation considering depression from COVID-19 as a mediator. *The International Journal of Social Psychiatry*, 67(1), 35-45.
- Makki, B.I., Salleh, R., & Harun, H. (2015). Work readiness, career self-efficacy and career exploration: a correlation analysis. *ISTMET Conference Proceeding*, 427-431.
- Mares, G., Cojocariu, V.-M., & Cîrțiță-Buzoianu, C. (2021). Making Career Decisions in the Context of the COVID-19 Pandemic. An Analysis of Disadvantaged Student Groups. *Postmodern Openings*, 12(1), 328-346. <https://doi.org/10.18662/po/12.1/264>.
- Matud, M.P., López-Curbelo, M. & Fortes, D. 2019. Gender and psychological well-being. *International Journal of Environmental Research and Public Health*, 16, 3531. Doi:10.3390/ijerph16/93531.
- Park, I.J., Lee, J., Kim, M., Kim, J.Y., & Jahng, S. (2019). Affect in daily career decision self-efficacy and career choice anxiety. *The Career Development Quarterly*, 67, 313-32.
- Parola, A., Rossi, A., Tessitore, F., Troisi, G., & Mannarini, S. (2020). Mental health through the COVID-19 quarantine: a growth curve analysis on Italian youth adults. *Frontiers in Psychology*, 11, 567484.
- Perrotta, G. (2019). Anxiety disorders: definitions, context, neural correlates and strategic therapy. *Jacobs Journal of Neurology and Neuroscience*, 6(1), 042.
- Pienaar, J.M., Beukes, R.B.I., & Esterhuysen, K.G.F. (2006). The relationship between conservatism and psychological well-being in adolescents. *South African Journal of Psychology*, 36(2), 391-406.
- Pisarik, C.T., Rowell, P.C., & Thompson, L.K. (2017). A phenomenological study on career anxiety among college students. *The Career Development Quarterly*, 65(4), 339-352.
- Pound, P., & Campbell, R. (2015). Locating and applying sociological theories of risk-taking to develop public health interventions for adolescents. *Health Sociology Review*, 24(1), 64-80.



- Rahmadani, R., & Sahrani, R. (2021). The role of stress during the COVID-19 pandemic in the future career anxiety of final-year students. *Advances in Social Science, Education and Humanities Research*, 570, 979-984.
- Ryff, C.D., & Keyes, C.L.M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719-727.
- Savickas, M.L. (2000). Renovating the psychology of careers for the 21st century. In A. Collin & R.A. Young (Eds.), *The Future of Career* (pp. 53-68). Cambridge, UK: Cambridge University Press.
- Sharma, D., & Chandiramani, K. (2021). Impact of identity process on psychological well-being of adolescents. *The International Journal of Indian Psychology*, 9(1), 1-19.
- Spaul, N., & Van der Berg, S. (2020). Counting the cost: COVID-19 school closure in South Africa and its impact on children. *South African Journal of Childhood Education*, 10(1), a924. <https://doi.org/10.4102/sajce.v10i1.924>.
- Steyn, B., & Roux, S. (2009). Aggression and psychological well-being of adolescent Tae Kwon Do participants in comparison with hockey participants and a non-sport group. *African Journal for Physical Health Education, Recreation and Dance*, 15, 32-43.
- Tahira, R., Akhter, N., & Javed, M. (2019). Impact of career self-efficacy beliefs on educational and career aspirations of bachelor students. *Journal of Educational Research*, 22(2), 53-67.
- Takil, N.C., & Sari, B.A. (2021). Trait anxiety versus career anxiety in relation to attentional control. *Current Psychology*, 40, 2366-2370.
- Trudel-Fitzgerald, C., Millstein, R.A., Von Hippel, C., Howe, C.J., Tomasso, L.P., Wagner, G.R., & VanderWeele, T.J. (2019). Psychological well-being as part of the public health debate? Insight into dimensions, interventions and policy. *BMC Public Health*, 19, 1-11. <https://doi.org/10.1186/s12889-019-8029-X>.
- UNESCO. (2020). *Education in a post-COVID world: nine ideas for public action*. Paris, France: International Commission on the futures of education.
- UNICEF. (2021). Learners in South Africa up to one school year behind where they should be. <https://www.unicef.org/press-releases/learners-south-africa-one-school-year-behind-where-they-should-be>.
- Van Schalkwyk, I., & Wissing, M.P. (2010). Psychosocial well-being in a group of South African adolescents. *Journal of Psychology in Africa*, 20(1), 53-60.
- Varlik, N. (2020). Rethinking the history of plague in the time of COVID-19. *Centaurus*, 62, 285-293.
- Yilman, F.N., & Gunduz, H.C. (2018). Career indecision and career anxiety in high school students: an investigation through structural equation modelling. *Eurasian Journal of Educational Research*, 78, 23-42.