

Future Orientation and Psychological Well-being: Unravelling the Dynamics in a university in Lima

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Focusing on our future is often associated with well-being, benefiting both the individual and society. However, the literature suggests that this relationship is not always consistent. Moreover, while this relationship has been studied in Lima from a subjective well-being perspective, it has not yet been explored using a psychological well-being framework. This study explores this relationship using Seigner's, Nurmi, and Poole's 'Future Orientation' and Diener et. al.'s 'Flourishing' constructs. Using data from 445 students from a Lima university (mean age=21.80; 64.27% females) and structural equation models, our results suggest that having a sense of internal control over one's future career ($b=.29$, $SE=.24$, $p<.01$), approaching one's future career with hope ($b=.27$, $SE=.14$, $p<.01$), and being optimistic about the realization of future family plans ($b=.27$, $SE=.13$, $p<.05$) are positively related to flourishing. Implications, limitations, and future research directions are discussed.

Keywords: future orientation, flourishing, structural equation modeling, psychological well-being, future time perspective.

Orientación al futuro y bienestar psicológico: desentrañando la dinámica en una universidad de Lima

Enfocarse en nuestro futuro a menudo se asocia con el bienestar, lo que beneficia tanto al individuo como a la sociedad. Sin embargo, la literatura sugiere que esta relación no siempre es consistente. Además, aunque esta relación ha sido estudiada en Lima desde una perspectiva de bienestar subjetivo, aún no se ha explorado utilizando un marco de bienestar psicológico. Este estudio explora esta relación utilizando los constructos de "Orientación Futura" de Seginer, Nurmi y Poole, y "Florecimiento" de Diener et al. Usando datos de 445 estudiantes de una universidad de Lima (edad media=21.80; 64.27% mujeres) y modelos de ecuaciones estructurales, nuestros resultados sugieren que tener un sentido de control

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interno sobre el futuro profesional ($b=.29$, $SE=.24$, $p<.01$), abordar el futuro profesional con esperanza ($b=.27$, $SE=.14$, $p<.01$), y ser optimista acerca de la realización de planes familiares futuros ($b=.27$, $SE=.13$, $p<.05$) están positivamente relacionados con el florecimiento. Se discuten las implicaciones, limitaciones y futuras direcciones de investigación.

Palabras clave: orientación futura, florecimiento, modelos de ecuaciones estructurales, bienestar psicológico, perspectiva de tiempo futuro.

Orientação para o futuro e bem-estar psicológico: Desvendando a dinâmica em uma universidade de Lima

Focar no nosso futuro é frequentemente associado ao bem-estar, beneficiando tanto o indivíduo quanto a sociedade. No entanto, a literatura sugere que essa relação nem sempre é consistente. Além disso, embora essa relação tenha sido estudada em Lima a partir de uma perspectiva de bem-estar subjetivo, ainda não foi explorada utilizando um quadro de bem-estar psicológico. Este estudo explora essa relação utilizando os construtos de “Orientação para o Futuro” de Seginer, Nurmi e Poole, e “Flourishing” de Diener et al. Usando dados de 445 estudantes de uma universidade de Lima (idade média=21,80; 64,27% mulheres) e modelos de equações estruturais, nossos resultados sugerem que ter um senso de controle interno sobre o futuro da carreira ($b=.29$, $SE=.24$, $p<.01$), abordar o futuro da carreira com esperança ($b=.27$, $SE=.14$, $p<.01$), e ser otimista quanto à realização de planos familiares futuros ($b=.27$, $SE=.13$, $p<.05$) estão positivamente relacionados ao florescimento. São discutidas as implicações, limitações e direções futuras de pesquisa.

Palavras-chave: orientação para o futuro, florescimento, modelagem de equações estruturais, bem-estar psicológico, perspectiva temporal futura.

Realizing our future goals and aspirations usually brings us well-being, which is essential not only for oneself but for society as a whole. Wellbeing is therefore not only valuable because it makes us feel good, but also because it has beneficial consequences for us and for others, impacting areas such as productivity, personal growth, resilience, learning, and social and economic development. This underscores the importance of monitoring well-being (Diener & Seligman, 2004; Frey & Stutzer, 2002; Helliwell, 2004; Maslow, 1943; Masten, 2001; Oswald et al., 1985). However, focusing on the future is not always associated with higher well-being (Kooij et al., 2018). Traditionally, well-being has been studied from two perspectives: hedonic, which includes positive and negative affect and life satisfaction, and eudemonic, which encompasses self-fulfillment, development of potential and life purpose. Martela and Sheldon (Martela & Sheldon, 2019; Sheldon, 2016, 2018) have recently suggested measuring well-being from both perspectives, arguing that this allows for a unified conceptualization of the construct. In Lima, Herrera & Matos (2016) reported a positive association between future orientation and life satisfaction (hedonic well-being). However, to our knowledge, the association between future orientation and eudemonic well-being has not been explored in this context, despite the theoretical alignment of the two variables. This study seeks to fill that gap by exploring how future orientation is related to eudemonic well-being in Lima university students.

As a parallel concern, although completing a degree may serve as a way to achieve goals and attain well-being, between 13% and 18% of Peruvian students who begin university, drop out (Figallo et al., 2020) and/or fail to realize their educational and career plans (Herrera et al., 2003). This could potentially hinder the development of the country (Tran & Vo, 2020). What might be the reasons behind young people not realizing their goals? There are structural factors, such as socioeconomic

status (SES) and membership in ethnic minorities, that could be related to this problem. However, there are also more flexible and changeable factors, such as interests, motivation, goal realism, and personal skills. Future Orientation (FO) (Seginer, 2009) is a psychological construct that integrates these malleable factors. It is essentially a motivational construct based on the subjective cognitive representation of personal needs and manifests in behaviors aimed at achieving those needs or goals (Seginer, 2009, 2018; Nuttin & Lens, 1985). In this sense, Future Orientation, under a thematic approach, emphasizes the importance of goals in guiding current behavior. The present investigation will be grounded in this theoretical framework, which differs from Future Time Orientation- a highly relevant construct in the contemporary psychological literature- that is analyzed from an athematic perspective (Coscioni et al., 2024)

The psychological literature precise that not only Future Orientation, but also Time Perspective plays a crucial role in individuals' psychological functioning. Some dimensions of Time Perspective have been clearly associated with different indicators of well-being, making it highly relevant to explore these relationships (Burzynska & Stolarski, 2020). However, the present study prioritizes the concept of Future Orientation over Time Perspective. Specifically, it examines how Future Orientation relates to psychological well-being at a university in Lima that offers a mentoring program, considering Future Orientation as the predictor variable. Empirical studies are inconsistent regarding the direction of the association between these two constructs. Moreover, the relationship between Future Orientation and psychological well-being has not been explored in the Lima context. In this regard, exploring the relationship between Future Orientation and psychological well-being among Lima university students represents a novel approach. On its own angle, identifying the subdimensions of Future Orientation most strongly associated with psychological well-being could provide clues on which aspects to enhance during tutoring to improve psychological well-being. This is especially relevant because two main objectives of tutoring are effective future planning—closely related to the construct of Future Orientation, which highlights the importance of goals in

guiding current behavior—and the overall development and well-being of the student (Arakaki et al., 2020; Congreso de la República del Perú, 2003, 2014; Herrera et al., 2022). These two objectives are also associated with lower levels of university dropout (López-Gómez, 2017; Mascia et al., 2023; Passeggia et al., 2023).

Theoretical Framework

Future Orientation as the Predictor Variable

The ability to envision, anticipate, plan and act for future desired outcomes has been studied through many psychological constructs, which emphasize different aspects of this notion. Early conceptualizations of future orientation delineated its motivational and cognitive nature (Frank, 1939; Israeli, 1930; Lewin, 1930). Later on, models that characterized future orientation as a general tendency of personality to focus on the future, along with its emotional aspects, became the leading perspective (e.g. ‘when I want to achieve something, I set goals and consider specific means for reaching these goals’ Zimbardo & Boyd, 1999). A shift then occurred, where dominant models moved away from viewing future orientation as a general tendency to think about the future, and began proposing that future thinking and goals were always specific to different life domains. Some examples of this approach include the proposal by Nuttin and Lens (Nuttin & Lens, 1985a, 1985b), which measures the construct through the Motivational Induction Method (MIM), and Nurmi’s list of hopes and fears for the future (Nurmi, 1987, as cited in Seginer, 2009). This thematic approach was strengthened by goal-based theories, which proposed perspectives of approach (hopes) and avoidance (fears) towards one’s goals; while social-cognitive theories related future orientation to behavioral outcomes, highlighting the role of anticipation as a fundamental determinant of action towards attaining one’s (Kooij et al., 2018; Seginer, 2009). The latest studies have underscored the flexibility and malleability of future orientation, pointing out that it is subject to change and development as a function of experience over the life span (Carstensen, 2006; Cate & John, 2007; Kooij et al., 2018).

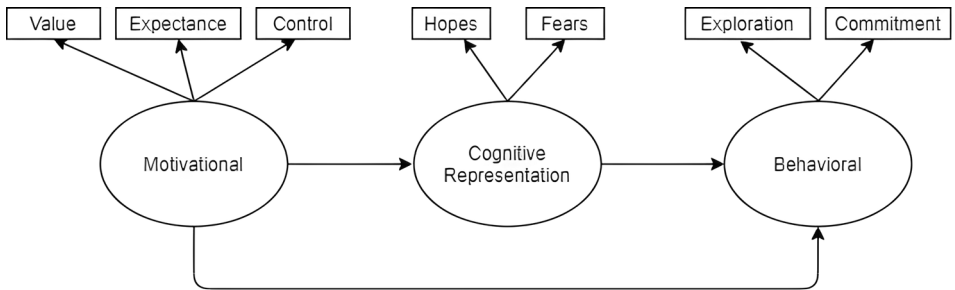


Figure 1. Seginer, Nurmi, and Poole's Future Orientation Construct

Note. Adapted from Seginer (2009).

However, despite future orientation's holistic evolution as a cognitive phenomenon, the acknowledgement of its motivational source and its relation to behavioral outcomes, most of the current and most used constructs of future orientation nowadays do not integrate these components. Aware of this, Seginer, Nurmi and Poole (2009) made an effort to integrate the existing components and developed a holistic conceptualization of future orientation (figure 1).

The model, which is anchored in the cognitive representation of the future, incorporates both the origins and outcomes of this representation, depicted in the motivational and behavioral components, respectively. In addition to those relationships, it also suggests a direct relationship between the motivational and behavioral components. All these relationships are illustrated by arrows. Each component is represented by subdimensions that integrate relevant psychological theories in a comprehensive and coherent manner, providing a solid theoretical foundation for the future orientation construct. The model applies to the life domains of career and family while being adaptable to different contexts, meaning that although its structure remains consistent, the specific goals' content, motivations, and behavioral expressions may differ across cultures. As a thematic approach, it stresses the relevance of goals in directing current behavior.

The motivational component is grounded in various motivational theories, including Atkinson's expectancy-value theory, theories about needs and interests, and the feasibility and value of achieving expected behavioral outcomes (Atkinson, 1957; Nuttin & Lens, 1985a; Wigfield & Eccles, 2000). Specifically, Seginer et al. define three subdimensions within this motivational component. Value refers to the importance a person places on goals of the career or family domain, respectively. Expectance refers to the optimism and confidence one has in materializing their future plans (Carver & Scheier, 2001, 2002). Internal control, derived from Rotter's social learning theory (Rotter, 1996), refers to the belief that materializing these goals and plans depends on one's skills and efforts.

The cognitive component forms the core of the model. It involves hopes and fears, which reflect how individuals engage with their goals—either by approaching them or avoiding them. Lastly, the behavioral component has two subdimensions. Exploration involves behaviors aimed at discovering potential future options, such as seeking advice and gathering information, as well as assessing how well these options fit with one's personal characteristics and life circumstances. Commitment occurs after exploration when the individual selects and commits to a future option (Seginer, 2009).

We opted for this construct to represent future orientation due to its solid theoretical grounding and its specific thematic approach to goal content, which we consider to be more suitable for our research goals and the particular context of our participants. Moreover, Andre et al.'s (2018) meta-analysis concluded that content-specific and multidimensional constructs of future thinking, like Seginer, Nurmi and Poole's, yield the strongest links with outcomes and are robust across domains and cultures. From a practical standpoint, using Seginer's quantitative thematic model of future orientation also facilitates, to some extent, the comparability of our findings with earlier studies in Lima that explored the connection between future orientation and well-being (e.g., Herrera & Matos, 2016)

Flourishing: a Psychological-Wellbeing Construct from the Eudemonic Perspective

Well-being is a key outcome in behavioral sciences, due to its relevance not only for individuals, but for society as a whole. Research outlines two major traditions in understanding well-being: subjective well-being and psychological well-being, each rooted in the philosophical ideas of hedonism and eudaimonia, respectively. Subjective well-being is concerned with happiness, enjoyment and life satisfaction, 'feeling good' in plain words. The second tradition, psychological well-being, addresses the functional aspects of well-being and is related to the development of one's potential, personal fulfilment and fundamental need satisfaction, providing a measure of whether people are 'doing well' and fully functioning. Simultaneously, each tradition has developed many conceptualizations of well-being within themselves (Cassaretto & Martínez, 2017; Kooij et al., 2018; New Economics Foundation, 2008; Ryan & Deci, 2001).

Recognizing that future orientation and psychological well-being share common human development foundations, we selected Flourishing, a construct from the psychological well-being tradition, to study well-being. Additionally, following Kooij's recommendation to assess well-being from both traditions, and noting that prior research in Lima has linked future orientation to subjective well-being but not yet to psychological well-being (Herrera, 2019; Herrera et al., 2022; Herrera & Matos, 2016), we chose to explore this relationship for the first time in our context.

Flourishing (Diener et al., 2009, 2010, see table 1) offers a comprehensive, up-to-date, and concise representation of psychological well-being. In addition, it has been successfully validated for the context of Lima universities (Cassaretto & Martínez, 2017). This construct captures optimal psychological functioning and stability that enable individuals to achieve their potential, by including elements such as a sense of life purpose, feelings of optimism and competence, positive interpersonal relationships, engagement and interest in the activities one performs, self-acceptance, and being appreciated by others (table 1).

Table 1

Theoretical Foundations of Flourishing

Item	Dimensions	Authors
1	Meaning and purpose of life	Ryff, 1989; Seligman, 2002
2	Support from significant others	Ryff, 1989; Deci y Ryan, 2000
3	Involvement or interest in one's activities	Csikszentmihalyi, 1990; Ryff, 1989; Seligman, 2002
4	Contributing to the well-being of others	Maslow, 1958; Ryff, 1989; Deci y Ryan, 2000
5	Feelings of competence and self-efficacy	Ryff, 1989; Deci y Ryan, 2000
6	Self-acceptance	Maslow, 1958; Ryff, 1989
7	Optimism	Seligman, 2002, Scheier y Carver, 2003
8	Being respected by others	Maslow, 1958, Ryff, 1989

Note. Adapted from Diener et. al. (2009, 2010)

Our Context

Given that university students are soon to contribute to societal progress with their talents, their flourishing becomes essential for national progress. Fortunately, Peruvian universities have implemented dedicated spaces, such as tutoring, to support students in their pursuit of flourishing. Tutoring is the process of guiding and supporting students in their pursuit of well-being, defined as optimal functioning, and holistic personal growth necessary for realizing their life goals and integrating into society (Álvarez González & Álvarez Justel, 2015; Arakaki et al., 2019). Tutoring can be viewed as a reflective process of planning and constructing one's future in various life domains (Herrera et al., 2022). Additionally, it is said to be negatively associated with student dropout (López-Gómez, 2017). In Peruvian universities, implementing tutoring is a legal obligation and is delivered by designated professors known as 'tutors' (Álvarez González & Álvarez Justel, 2015; Arakaki et al., 2019, 2020; Congreso de la República del Perú, 2003, 2014; Herrera et al., 2022; Moreno & Gallego, 1999). Strengthening future orientation in university tutoring spaces -where effective

future planning and student well-being are primary objectives- might be a way to enhance students' flourishing. Tangentially, a student body with higher flourishing might reduce dropout rates (López-Gómez, 2017), thereby enriching the nation's pool of skilled individuals.

The Present Study

This study's main goal is to explore if and to what extent future orientation is related to undergraduates' psychological well-being in the chosen university, considering future orientation as the predictor variable while flourishing represents psychological well-being from a eudemonic viewpoint and takes on the role of the outcome variable (see figures 2 and 3). The study places future orientation as the predictor variable, given its malleability and the solid theoretical foundation of its subdimensions. This raises the construct's potential to serve as a useful guide to potentially raise well-being in tutoring spaces. Flourishing serves as the outcome variable, as the study's main aim is to identify correlates that could enhance psychological well-being. Therefore, we formulate our research questions as:

- To what extent future orientation towards one's career is related to flourishing? Which subdimensions of future orientation are more strongly related to flourishing?
- To what extent future orientation towards one's family is related to flourishing? Which subdimensions of future orientation are more strongly related to flourishing?

The first part of each research question looks at the relationship between future orientation and flourishing, using Seginer's Future Orientation model, which defines future orientation as a general factor consisting of three components—motivation, cognitive representation, and behavior—represented by subdimensions (see figure 1). The second part then delves into how each of these seven subdimensions relates to flourishing in order to provide more granular information regarding the relationship between the two targeted variables.

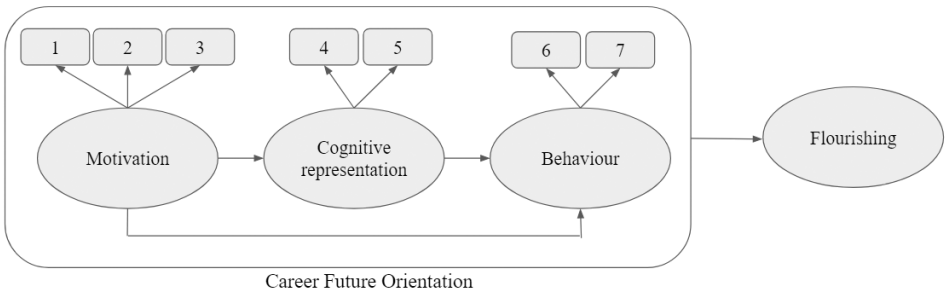


Figure 2. Hypothetical Model for Research Question 1: Career Future Orientation and Flourishing

Note. 1=career value, 2=career expectance, 3=career internal control, 4=career hopes, 5=career fears, 6=career exploration, 7= career commitment

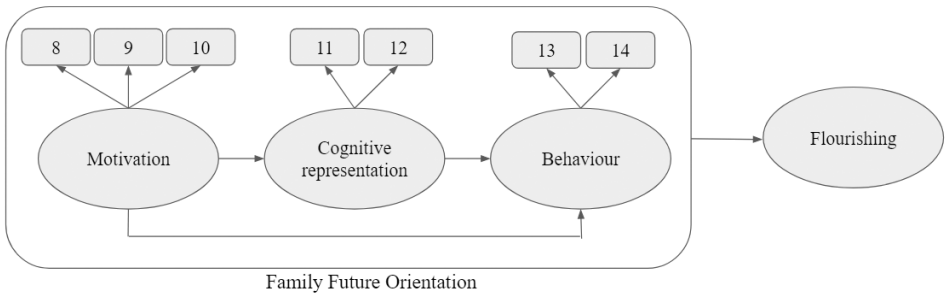


Figure 3. Hypothetical Model for Research Question 2: Family Future Orientation and Flourishing

Note. 8=family value, 9=family expectance, 10=family internal control, 11=family hopes, 12=family fears, 13=family exploration, 14=family commitment

Although different conceptual frameworks have been used, a substantial number of previous studies suggest that future thinking is positively related to well-being. For instance, Pethel et al. (2018) reported mostly positive correlations between future thinking, conceptualized by Zimbardo's athematic approach to time perspective (ZTPI), and Ryff's psychological well-being dimensions in a USA sample involving

adults and young adults (Ryff, 1989b, 1989c, 1989a). In New Zealand, Chua et al. (2015) conducted a longitudinal study and reported that future orientation, assessed through Ryff & Keyes's (1995) aspirations and purpose in life from the psychological well-being tradition, predicted well-being outcomes in adolescents. From a qualitative perspective, a thematic future orientation approach, expressed in prospective life course narratives, has been reported to be positively associated with several dimensions of psychological well-being (Seginer, 2005, 2009).

However, Kooji et al. (2018) reported that there is not always a relationship between future thinking and well-being, or this relationship is not always positive. Their meta-analysis included 212 academic articles that studied future thinking published between 1963 and 2015, with 85% articles published after 2000. The analysis covered diverse age groups, with over fifty percent of the articles involving adolescents, more than forty percent involving adults, and the remainder focusing on other life stages. Geographically, 50% of the articles were conducted in the USA, 35% in Europe, 6% in Asia, and 10% in other regions. Based on their findings, Kooji et. al conclude in their meta-analysis that the relationship between future orientation and well-being depends on the specific conceptualization—and tradition—of well-being under consideration.

In Perú, measures of future orientation have been related to the subjective well-being tradition. Herrera et al. (2015) reported a positive relationship between the thematic construct of 'future time perspective' and the satisfaction with life scale (Diener et. al., 1985) in a sample of university students from Perú, Costa Rica, and the USA. A subsequent study with Lima undergraduates, using the conceptualization we plan to use in the current study, found a positive association between Seginer, Nurmi, and Poole's Future Orientation and the satisfaction with life scale, though they employed a simpler model that included only the seven subdimensions without organizing them into three components. Particularly, a strong association ($r = .53^{**}$) was reported between the expectance subdimension and satisfaction with life. A more recent study reported similar results (Herrera et al., personal

communication, 2021). According to this evidence, it is also relevant to consider the psychometric properties of the Future Orientation measure in Peruvian and specifically Lima's context.

Given that a significant number of empirical and theoretical studies suggest a positive association between future thinking and well-being, we are inclined to believe that individuals with higher levels of future orientation and its subdimensions would also have higher levels of flourishing. However, we cannot overlook the findings from Kooji's meta-analysis, which highlighted that the relationship between these variables is not always positive and depends on the well-being tradition being used. These mixed findings highlight the need for further investigation into the nature of the relationship between future orientation and flourishing, a psychological well-being conceptualization, in Lima and to explore whether it is similar to the reported positive relationship between future orientation and subjective well-being. This need is further emphasized by the lack of previous studies on the relationship between future orientation and flourishing in our context. By addressing this gap, our study not only contributes with novel empirical data but could potentially guide future studies.

Method

Sample and procedures

An effective sample size of 445 undergraduates between eighteen and thirty years old (mean=21.80, median=21.50; SD=2.50, 64.27% females) from a private university in Lima completed the self-reported questionnaires in person during a single session in the year 2019. Participation was voluntary, both for the professors of the different faculties who allocated their class time for the administration of the questionnaires, and the students, who signed an informed consent (appendix). No compensation was offered to the participants. The main researcher remained present in the classrooms to answer any questions that arose.

Measures

Prospective Life Course Questionnaires

This questionnaire measures Future Orientation (Seginer, 2009) through three components: motivational, cognitive representation, and behavior. Each of these contain subdimensions (see introduction for details) which are represented by items. Participants completed two variants of this questionnaire: career domain (35 items) and family domain (32 items). Responses are on likert and semantic differential scales, with 1 indicating a low presence and 5 a high presence of the attribute. Scoring is based on sum scores, including 10 reverse-scored items.

Herrera (Herrera & Matos, 2016; Herrera, personal communication, June 14, 2021) tested Seginer's Future Orientation model in a sample of university students from Lima. Since the original model was not identified, they tested a simpler model that directly represented Future Orientation through the seven subdimensions: value, expectance, internal control, hopes, fears, exploration, and commitment, without the three components. This simpler model obtained adequate fit indices for both the career domain (χ^2 (333) = 662.40, $p < .001$; CFI=.92; TLI=.91; RMSEA=.05) and the family domain (χ^2 (306) = 888.64, $p < .001$; CFI=.91; TLI=.90; RMSEA=.07). The present study used a revised version of the questionnaires by Herrera (personal communication, October, 2019), testing its measurement properties with a confirmatory factor analysis (CFA). Similarly to Herrera (2016, 2021), the original three-component model was not identified, so the simpler model was used.

Fit indices for both the career domain (χ^2 (506) = 1389.48, $p < .001$; CFI=.83; TLI=.82; RMSEA=.06; SRMR=.07) and the family domain (χ^2 (443) = 1903.64, $p < .001$; CFI=.86; TLI=.85; RMSEA=.09; SRMR=.08) were acceptable. Factor loadings ranged from .23 to .84 for the career domain and from .52 to .95 for the family domain. One item from the subdimension exploration of the future career was removed due its low factor loading. Reliabilities were also acceptable

for the seven subdimensions of future orientation towards the career ($\omega = .85-.95$) and the family ($\omega = .87-.91$).

Flourishing

The Spanish version of Diener's Flourishing scale (Diener et al., 2010) by Cassaretto & Martínez (2017) was used. Flourishing is a unidimensional scale with 8 items. Responses are on Likert scale with 1 indicating a low presence and 7 a high presence of the attribute. Scoring is based on sum scores. The fit indices ($\chi^2(20) = 94.027$, $p < .001$; CFI=.96; TLI=.95; RMSEA=.08; SRMR=.03), factor loadings (.61 - .80) of the confirmatory factor analysis for this sample and reliability were acceptable ($\omega = .90$).

Data analysis

We collected data from 446 students and used a full information approach to handle missing data. The data was analysed in the statistical programme R version 4.4.1 (R Core Team, 2017). We assessed the normality of the subdimensions with Kline's (2016) rule of thumb where absolute values of skewness ≥ 3 and kurtosis ≥ 3 suggest non-normal distributions. The reliability of the scales was reported with McDonald's ω .

The measurement properties of the questionnaires reported in the previous section were tested using confirmatory factor analysis (CFA). This technique tests the validity of theoretical constructs by generating factor loadings for the items on specified factor(s) (Brown, 2015). To answer the research questions, we used structural equation modelling (SEM). SEM models complex relationships among observed and unobserved variables, and by doing so it tests explanatory relationships among unobserved variables (Kline, 2016). Because SEM allows for testing these complex relationships, and since Seginer et al. developed their model using this methodology, we chose to use SEM.

To address the first research question, two models were fitted. In the first model, future career orientation was the predictor variable,

and flourishing was the outcome. In the second model, the seven sub-dimensions of value for the future career, expectancy for the future career, internal control for the future career, hopes for the future career, fears towards the future career, exploration regarding the future career, and commitment to the future career were the predictor variables, while flourishing was the outcome. To address the second research question, we fitted a third model where future family orientation was the predictor, with flourishing again as the outcome. Lastly, a fourth model were the seven subdimensions of value for the future family, expectancy for the future family, internal control for the future family, hopes for the future family, fears towards the future family, exploration regarding the future family, and commitment to the future family were the predictor variables, while flourishing was the outcome.

Both confirmatory factor analyses and structural equation models were tested using the lavaan package version 0.6.18 (Rosseel, 2012) with a robust maximum likelihood estimation approach, robust for non-normal distributions. Goodness-of-fit statistics such as chi-square test, robust comparative fit index (CFI), Tucker – Lewis's index (TLI), root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR) were used to evaluate the models. Hu & Bentler (1999) suggested that values of .95 or greater for CFI and TLI, .06 or below for RMSEA, and .08 or below for SRMR are considered a good fit. The coefficient of determination r^2 measured the models' explanatory power.

Results

The purpose of this study is to explore if and to what extent future orientation is related to flourishing, considering future orientation as the predictor variable while flourishing takes on the role of the outcome variable. Since the original future orientation three-component (motivation, cognitive representation and behavior) model was not identified, we used a simplified model consisting of the seven subdi-

mensions -value, expectance, internal control, hopes, fears, exploration, and commitment. To address our two research questions, we tested two hypothetical models. The first considered the seven subdimensions of the career future orientation domain as predictors, with flourishing as the outcome (see figure 2).

The second considered the seven subdimensions of the family future orientation domain as predictors, with flourishing as the outcome (see figure 3). For both models, we expected a positive association between future orientation's subdimensions and flourishing.

Table 2

Structural Equation Models for the Relationship Between Career Future Orientation and Flourishing

	Estimate	SE	<i>p</i>	Standardized Estimate
Value	-.03	.07	.669	-.03
Expectance	.22	.18	.228	.13
Internal Control	.69	.24	.005	.29
Hopes	.47	.14	.001	.27
Fears	-.17	.07	.023	-.14
Exploration	.02	.27	.944	.01
Commitment	.30	.21	.159	.14

Note. $R^2 = .38$; $\chi^2 (791) = 1868.391$, $p < .001$; CFI=.86; TLI=.85; RMSEA=.05; SRMR=.06; $n=445$

The subdimensions of career future orientation were estimated to account for about 38% of the variation in flourishing (table 2). The general pattern of associations between the subdimensions and flourishing is in line with what we expected. For students of the same levels in all subdimensions but internal control, those who have stronger beliefs that materializing their career goals depends on their effort and skill are estimated to have, on average, .69 points more in the flourishing scale ($SE=.24$, $p<.05$). For students of the same levels in all subdimensions but hopes, those who have one point higher of hopes towards their

future career are estimated to have, on average, .47 points more in the flourishing scale ($SE=.14$, $p<.01$). Although of more modest magnitude, having greater optimism and confidence in realizing future career plans (i.e., expectance $b=.22$, $SE=.18$, $p=.23$) and committing to a chosen career path ($b=.30$, $SE=.21$, $p=.16$) are estimated to have a positive relationship with flourishing; while worrying about one's future career is negatively associated ($b=-.17$, $SE=.07$, $p<.05$). The importance placed on one's future career and exploring future career options may not be related to flourishing. All in all, although the effect sizes are modest, most of the estimated results suggest a positive association between Seginer, Nurmi, and Poole career future orientation's subdimensions (Seginer, 2009) and flourishing, which seems to support our hypothetical model.

The subdimensions of family future orientation were estimated to account for about 15% of the variation in flourishing (table 3). The general pattern of results suggest that our expectations were partially met, although most of the magnitudes were small. For students of the same levels in all subdimensions but expectance, those who have one scale-point more of optimism and confidence in

Table 3

Structural Equation Models for the Relationship Between Family Future Orientation and Flourishing

	Estimate	SE	<i>p</i>	Standardized Estimate
Value	.05	.10	.627	.05
Expectance	.27	.12	.028	.27
Internal Control	.16	.07	.020	.15
Hopes	-.11	.10	.246	-.11
Fears	-.10	.08	.211	-.09
Exploration	-.01	.08	.856	-.01
Commitment	.10	.11	.359	.09

Note. $R^2 = .15$; $\chi^2 (712) = 2340.07$, $p<.001$; CFI=.87; TLI=.86; RMSEA=.07; SRMR=.07; $n=445$.

Realizing future family plans are estimated to score, on average, .27 points more in the flourishing scale ($SE=.13$, $p<.05$). To a certain extent, believing that materializing family goals depend on one's own efforts and skills is somewhat positively associated with flourishing ($b=.16$, $SE=.07$, $p<.05$), while thinking hopefully about one's future family is negative associated, although the magnitude of these association could be considered small ($b=.11$, $SE=.10$, $p=.25$). The importance placed on one's future family, concerns about it, exploring potential future family options, and committing to one might not be related to flourishing. Sex and age were included as controls. Neither age nor sex emerged as significant predictors in either model (See supplementary material table 1 and 2). Findings support the relevance of Future Orientation and life projects—both career and family related—as central contributors to youth flourishing.

Discussion

Consistent with previous research involving undergraduate (Esparza Arana, 2024; Herrera et al., 2022), the original three-component model proposed by Seginer, Nurmi, and Poole was not identified. Instead, a simplified model with seven subdimensions was used. The no identification of the original model might be due to the subdimensions being potentially closely related to each other beyond their respective components. Another possible reason could be that the model was initially developed having school students in mind; however, Ramos (personal communication, 2024) also did not identify the three components when working with school students. Considering this, a theoretical revision of the future orientation construct is recommended. Nevertheless, it is also possible that, during the process of adapting the questionnaire to a different context, some items may have lost their ability to accurately reflect the three components. Therefore, it is essential to conduct an in-depth investigation of the scale's psychometric properties. Future research might benefit from exploring

alternative constructs or models of future orientation, particularly those developed with university students in mind and validated in Latin American settings, which may offer greater contextual relevance to the Lima context.

While the original three-component model posed identification challenges, the simplified model with seven subdimensions was successfully identified. This model was used to address our research questions by testing hypothetical models that examined the relationships between career future orientation and flourishing, as well as family future orientation and flourishing (see figures 2 and 3). As mentioned, flourishing - a construct from the psychological well-being tradition - was chosen because, to our knowledge, this tradition has not been previously explored in a Lima sample, despite its theoretical closeness to future orientation. Empirically, the study was prompted by the mixed findings on the relationship between future orientation and well-being, reported by Kooij et. al. (2018). The relevance of this study lies in the potential positive relationship between future orientation and psychological well-being, taking into account the malleability of future orientation and the critical importance of well-being for both individuals and society.

Future career orientation was estimated to account for nearly twice the variation in flourishing ($R^2 = .38$) compared to future family orientation ($R^2 = .15$). This finding could be related to the specific context and developmental stage of the students. In a university setting within a Westernised city like Lima, individuals aged between eighteen and thirty may place greater importance on their career as the primary source of psychological well-being and personal fulfilment. While the psychological well-being associated with family may gain importance later in life (Castillo, 2007; Furstenberg Jr. et al., 2005; Lefrancois, 2001). Most of the estimated relationships suggested that having higher career future orientation subdimensions are associated with higher flourishing levels. This is well aligned with our expectations and partially with previous research with international (e.g. Chua et al., 2015; Pethtel et al., 2018; Seginer, 2005, 2009) and national

samples. Albeit previous research with Lima university samples, used an hedonic well-being perspective (e.g. Herrera et al., 2022; Herrera & Matos, 2016).

The results suggest that believing that the materialization of one's career's hopes and plans depend on personal skills and efforts (internal control) and approaching one's career future with hope are two subdimensions that considerably related to flourishing (on a standardized scale, internal control: $b=.29$, $SE=.24$, $p<.01$; hopes: $b=.27$, $SE=.14$, $p<.01$, while fears associate negatively: $b=-.14$, $SE=.07$, $p<.05$). This seems logical, as a feeling of self-determination in one's future and a hopeful approach towards it may foster feelings of competence, self-acceptance, self-efficacy, raise interest in one's own life, and a sense of fulfilling one's purpose and potential. Previous studies also found a relationship between internal control and well-being (e.g., Toikko & Rantanen, 2016, albeit using a subjective well-being construct in a sample of adolescents). The estimated results also hint that being optimistic and confident on the materialization of future family plans (i.e. expectance) is related to flourishing ($b=.27$, $SE=.13$, $p<.05$). This estimated association aligns with previous national research (e.g., Herrera & Matos, 2016, although this study used a hedonic well-being perspective). From a theoretical standpoint, feeling optimistic and confident about the materialization of future family plans could fulfil the need for relatedness and feed and contribute to a general feeling of optimism for life, which is related to optimal functioning (Deci & Ryan, 2000). Other estimated associations were somewhat small in magnitude and/or seemed not to be associated with flourishing, aligning with Kooij et al. (2018) reports. Regarding the lack of association between exploration and flourishing and commitment with flourishing, our participants, who are between eighteen and thirty years old, may feel that they still have time to explore both family and career options before settling on a choice. This would align with the concept of lifelong career construction (Guichard, 2005; Savickas et al., 2009; Super, 1980). As for the value subdimension, it is possible that valuing other life domains other than future career and family may be related to their current flourishing. These are of course potential

explanations, we do not rule out possible influences of other factors in our estimated results, such as biases due to non-random sampling, associations between missing responses and respondent characteristics, omitted variables, the nature of self-reported questionnaires, small sample size, common method variance, etc.

Given the relationships between certain subdimensions of future orientation and flourishing, and in line with recommended theoretical revisions to Seginer, Nurmi, and Poole's future orientation construct, the results suggest that the instrument used may need adjustment. For instance, this could involve reducing the number of subdimensions

From a broader perspective, considering that the university where this study was conducted has a tutoring program aimed at supporting effective future planning and student well-being and development (Congress of the Republic of Peru, 2003, 2014), it might be important to work on the subdimensions of future orientation that seemed to be more related to flourishing. This focus could potentially reduce drop-out rates and help students to materialize their goals and plans. However, this reflection needs to be taken with caution. To draw stronger inferences, future research could include longitudinal and experimental studies, coupled with the exploration of the sequential relationships between the three components: motivation, cognitive representation, and behavior. However, we believe our results are valuable in providing clues about the initial steps needed to support students in achieving their goals and psychological well-being. Moreover, the findings underscore the need to revise Seginer, Nurmi, and Poole's future orientation construct before applying it in experimental and longitudinal research.

All in all, the findings hint that certain future orientation subdimensions are positively related to undergraduates' psychological well-being. This coupled with the flexible nature of future orientation and extensive literature emphasizing its role in helping students materialize their plans, leads us to conclude that the construct of future orientation deserves further investigation. This research field becomes even more important with the realization that students' psychological well-being and development are fundamentally related to the well-being of their nation.

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