RESEARCH ARTICLE



Relationship between protégés' self-concordance and life purpose: The moderating role of mentor feedback environment

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FUNDING INFORMATION

This work was supported by the National Natural Science Foundation of China (71801120, 71901031), the Ministry of Education of Humanities and Social Science **Research Youth Fund Project of China** (18YJC630038), Shandong Social Science Planning Fund (19CQXJ05) and the China Scholarship Council (201908370108).

Abstract

Aim: To deepen our research on how to develop a more positive life purpose, this study investigates the role of protégés' self-concordance and mentor feedback environment in shaping protégés' life purpose.

Method: This study was a cross-sectional study using a sample of nurses. 700 valid questionnaires were collected. Jamovi and Process Macro were used for analysis. Results: The positive association between self-concordance and protégés' life purpose is stronger when mentor feedback environment is high than when mentor feedback environment is low.

Conclusion: Protégés' life purpose can be enhanced by self-concordance, especially for protégés who work in supportive mentor feedback environment.

Implications for nursing management: It is important to build a supportive mentor feedback environment. Further, protégés should promote the transformation of extrinsic motivation to intrinsic motivation.

KEYWORDS

life purpose, mentor feedback environment, nurse, protégé, self-concordance

1 | INTRODUCTION

Life purpose refers to "a stable and generalized intention to accomplish something that is both meaningful to the self and of intended consequences to the world beyond the self" (Damon, Menon, & Cotton Bronk, 2003, p. 121). Studies have shown that life purpose can lead to a better physical and mental state and an increase in individual achievement (Kim & Scheller-Wolf, 2019). Malin, Liauw, and Damon (2017) have found that life transitions such as further education and employment related to the development of life purpose. For college students majoring in nursing who will graduate from college, they must adapt to the role transition (Mashi, Subramaniam, & Johari, 2018). It is necessary to explore how to develop life purpose

positively. To deepen our research, this study addresses two key issues.

The first issue concerns clarification on the relationship between motivation and life purpose. Prior research has emphasized the positive effects of intrinsic motivations on life purpose (Shin, Kim, Hwang, & Lee, 2018). However, the basic need for people in work is to be paid and people definitely have external motivations. Therefore, after graduating from college, it is normal that intrinsic and extrinsic motivations exist simultaneously. However, these studies have focused on intrinsic motivation and have not tested a theoretical framework that might further explain psychologically how and why those with extrinsic motivation are also satisfied with their jobs. It is not enough and unrealistic for the study

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to emphasize only intrinsic motivation and ignore extrinsic motivation. Based on Self-Determination Theory (SDT), self-concordance refers to the extent to which activities such as task-related goals express individuals' authentic interests and values (Ryan & Deci, 2000). In SDT, external motivation can be transformed into internal motivation and achieve self-concordance (Ryan & Deci, 2000). A self-concordant person is likely to receive sustained effort over time, be more attainable and as such are more satisfying. This study makes this connection.

The second issue concerns the effect of feedback environment and explains what mentor's functions are in the process of practice. Young people should achieve their positive development in interaction with the environment (Lerner, Lerner, Urban, & Zaff, 2016). Feedback environment can support a person realizing the meaning of a task and affect life purpose positively. Previous research on feedback environment has focused on the role of supervisor and co-worker, but not included the role of mentor. Mentor feedback environment refers to the informal feedback context between mentors and protégés (Gong & Li, 2019). Exploring the mentor feedback environment is a new way to understand life purpose because mentor feedback environment can provide the protégé career support (Gong & Li, 2019). During the transition, the relationship between the protégé and the mentor has gradually increased and the feedback support from the mentor is more closely linked to one's interests and future goals (Gong & Li, 2019). Social contexts, like mentoring, can enhance the positive effect of self-concordance (Ryan & Deci, 2000). Therefore, research is needed to fill a gap and explore the effect of mentor feedback environment on the purpose of life.

1.1 | Self-concordance and life purpose

Previous studies have found that intrinsic motivation plays an active role in the formation of college students' life purpose (Shin et al., 2018). Individuals with strong intrinsic motivation are willing to focus on tasks (Latham & Pinder, 2005). Similarly, the development of life purpose, especially self-confidence in life purpose, is affected by the degree of interest and enjoyment of the task itself (Damon et al., 2003).

For college students majoring in nursing, the college emphasizes achievements in learning and practice equally. All students must participate in practice to complete elective and compulsory courses, complete credits or earn additional credits for employment (Salili, Chiu, & Hong, 2001). Once the topic is related to work, external motivations such as salary and grades become salient. According to SDT, self-concordance refers to the degree of integration of the goals set by individuals with their internal interests and values. This can reflect the role of intrinsic and extrinsic motivations, thus illustrating that goal self-concordance integrates intrinsic and extrinsic motivation conflicts can impair the sense of life purpose (Bono & Judge, 2003). Although the relative autonomy of extrinsic motivation is low, it will also promote the development of life purpose to a certain extent. Therefore, individuals who tend to experience greater subjective mixed emotions when conflicting motivations occur can deal with the negative consequences and rewarding features simultaneously, achieving a more purposeful life. Based on the above discussion, we offer the following assumption:

Hypothesis 1: Self-concordance will relate positively to life purpose.

1.2 | Mentor feedback environment and life purpose

Prior literature has shown that feedback is associated with life purpose. Feedback can provide clear information to help one explore the meaning deeply and how their job influences the future of others and themselves. In turn, this sense stimulates a direction for life purpose. Shin et al. (2018) have found that informative feedback predicted confidence in purpose positively. Research has found that informative feedback can enhance the belief in their ability (Ryan & Deci, 2000).

A supportive feedback environment provides usable and high-quality feedback that serves as a useful resource for protégés to respond to expectations (Avey, Luthans, & Jensen, 2009). The informative feedback provided by the mentor successfully regulates the learning process by increasing protégés' confidence in their abilities (Beek, Zuiker, & Zwart, 2019). These positive feelings can encourage protégés to be more active in activities, thus providing a way for good reflection on life purpose (Bundick, 2011; Bundick & Tirri, 2014; Eyler, 2002; Damon et al., 2003). The mentor feedback environment, as support for psychological resources, can promote the improvement of life purpose. In view of the above research, we offer the following hypothesis:

> Hypothesis 2: Mentor feedback environment will relate positively to life purpose.

1.3 | The moderating role of mentor feedback environment between goal self-concordance and life purpose

Supportive social contexts can enhance the positive effect of selfconcordance. In the previous study, it has found that the supportive feedback environment had the function of information guidance, which can enhance the individual's recognition of the goal, improve the level of self-concordance and make the individual pay more effort in the process of achieving the goal (Gong & Li, 2019). In this paper, supportive mentor feedback environment will improve protégés' confidence in their ability, which enhances the protégés' motivation to pursue excellence, clarifies their true targets to achieve their goals with self-concordance and point out the direction for protégés' life purpose. At the same time, protégés will also seek feedback; they take the initiative to ask the mentor for feedback, and this initiative will be conducive to protégés on life purpose.

Extrinsic motivation may lessen the sense of enjoyment of a job primarily done for the reward (Ryan & Deci, 2000), but in some supportive contexts, extrinsic motivation can come to be felt by the person as motivated by responsibility. Because the mentor feedback environment can increase protégés' responsibility for themselves and others, it can enhance the positive effect of self-concordance impact on life purpose (Berrios, Totterdell, & Kellett, 2017). However, even if the protégés' goals are consistent with their own interests and values such that they have self-concordance, if the protégés do not receive useful feedback, protégés will not feel supported and will lack reflection on life purpose (Dawson et al., 2019). When a person has a high level of self-concordance, the person does not enjoy the task, but thinks the task is important and thus does it willingly (Bono & Judge, 2003). Thus, different supportive levels of feedback environment may affect the relationship between self-concordance and life purpose. In view of the above research, we offer the following hypothesis:

Hypothesis 3: Mentor feedback environment moderates the relationship between self-concordance and life purpose; that relationship is stronger when mentor feedback environment is high than when mentor feedback environment is low. We describe our research model in Figure 1.

2 | METHODS

2.1 | Study design

This study was a cross-sectional study using a sample of 792 nurses who had an internship in China. All participants came from cities in Shandong and Hebei Province.

2.2 | Sample

The participants of this study were student nurses from China who were in nursing practice. Of the 700 nurses completing a valid survey, 83.28% (N = 583) were female and 16.72% (N = 117) were male. Their average age was 21.46 (*SD* 1.13), and all were over 19 years old, the age of majority in Mainland China. Concerning education, 94.85% (N = 664) will hold a bachelor's degree and below within 1 year (such as graduate from 2 or 3 years of college and technical secondary school).

2.3 | Instruments

All items use a 5-point Likert-type scale from 1 (*none at all*)–5 (*a great deal*) for measurement.

2.3.1 | Self-concordance

We measured self-concordance by using Sheldon and Elliot's scale (1998). Cronbach's α for the measure of self-concordance was .87. We used the standard of good fit to determine whether the variable had good structural validity (Hu & Bentler, 1999): χ^2/df is <3, root mean square error of approximation (RMSEA) is <.05, Tucker-Lewis index (TLI) and comparative fit index (CFI) are over .90. The fit indices of this scale were $\chi^2/df = 2.87$, RMSEA = .04, CFI = .91, TLI = .90. Hence, this is an appropriate survey to measure self-concordance.

2.3.2 | Mentor feedback environment

We measured mentor feedback environment with a scale established by Gong and Li (2019). This scale has been tested in China and has good reliability and validity. This instrument has 21 items in total with items like "My mentor gives me useful feedback about my job performance." Cronbach's α for this scale was .88. The fit indices were $\chi^2/df = 2.37$, RMSEA = .03, CFI = .93, TLI = .91.

2.3.3 | Life purpose

The purpose subscale of Psychological Well-Being by Ryff (2014) was used to test life purpose. The scale includes nine items measuring participants' future orientation, such as "Some people have no purpose in their lives, but I am not"; "I do not know exactly why I want to work hard in life." Cronbach's α for this scale was .94. The fit indices of this were $\chi^2/df = 2.67$, RMSEA = .05, CFI = 0.94, TLI = .92.

2.3.4 | Controls

We controlled for socio-demographic differences, including gender, age and education. We tested age as a discrete variable and gender and education as age groups.



 TABLE 1
 Means, standard deviations and correlations of all measures

Variable	Mean	SD	1	2	3
1. Self-concordance	2.61	0.65	-		
2. Mentor feedback environment	3.03	0.74	.41**	-	
3. Life purpose	3.37	0.96	.58**	.42**	-

Note: N = 700.

**p < .01.

2.4 | Data collection

With the agreement of the participants and the director of nursing of the hospital, all the questionnaires were completed during the work hours. The student nurses were measured by layer cluster sampling. The questionnaires were sent to nurses at four hospitals. These nurses first read and signed a consent form indicating that their participation was voluntary and guaranteeing the anonymity of their responses. All participants were given a description of the purpose of this study. After signing and returning the consent form, each nurse was presented with the survey instrument. Using convenience sampling, 792 questionnaires were distributed, and 700 valid questionnaires were returned (an effective response rate of 88.38%).

2.5 | Data analysis

Jamovi 1.2.2 (The jamovi project, 2020) and Process Macro 3.3 (Hayes, 2018) were used for statistical procedures. Jamovi was used for descriptive analysis, independent sample *t* test for analysing how gender and education can influence the life purpose of samples, Pearson's correlation analysis for testing the relationship between self-concordance, mentor feedback environment and life purpose. Process Macro 3.3 was used to confirm the relationships between variables and significance by bootstrapping. This study adopted a single factor test to clear the common method bias issue. When conducted principal component analysis with all factor fixed as one component, the factor with the most massive explanatory power was not greater than half of the total variance (33.38%), confirming that there was no problem.

2.6 | Ethical considerations

This study was conducted with the approval of the ethics committee of Liaocheng University (2017_7_14).

3 | RESULTS

Among social-demographic variables, because we test age as a discrete variable and the cases of "other" education level were too few, WILFY

we conducted *t* tests or analysis of variance for the life purpose based on gender and education. Female nurse (3.99 \pm 0.94) had a higher life purpose than male nurse (3.28 SD 0.87) (*t* = 5.04, *p* < .01). The nurse who holds a bachelor's degree and below within 1 year (such as graduate from 2 or 3 years of college and technical secondary school) (3.63 SD 0.76) had a higher life purpose than others (3.03 SD 0.78) (*t* = 3.84, *p* < .01).

From the data in Table 1, the mean scores for self-concordance, mentor feedback environment and life purpose were 2.61 (*SD* 0.65), 3.03 (*SD* 0.74) and 3.37 (*SD* 0.96), respectively. The association between self-concordance and life purpose is positive and significant (r = .58, p < .01). Positive associations were found between mentor feedback environment and life purpose (r = .42, p < .01). The association between self-concordance and mentor feedback environment is also positive and significant (r = .41 p < .01).

Table 2 shows that self-concordance associated with life purpose (β = 0.41, *t* = 6.85, *p* < .01), supporting H1. Mentor feedback environment also associated with life purpose positively (β = 0.14, *t* = 2.17, *p* < .05), supporting H2.

The interaction term for self-concordance and mentor feedback environment was significant (β = 0.18, t = 3.11, p < .01). Figure 2 illustrates the form of the interaction.

Table 3 shows that the conditional direct effect of self-concordance was stronger and significant at a high level of mentor feedback environment (conditional effect = 0.60, *SE* = .08, *t* = 7.79, *p* < .01, 95% confidence interval of 0.45–0.76) and at a moderate level of mentor feedback environment (conditional indirect effect = 0.41, *SE* = .06, *t* = 6.58, *p* < .01, 95% confidence interval of 0.29–0.52), but was positive and not significant at a low level of mentor feedback environment (conditional indirect effect = 0.21, *SE* = .10, *t* = 2.18, ns, 95% confidence interval of – 0.12 to 0.33). Hence, H3 was supported.

4 | DISCUSSION

Prior research has mainly focused on the positive effect of intrinsic motivation on life purpose while failing to explore the effect of motivation when both intrinsic and extrinsic motivations exist simultaneously. We examined how self-concordance, which refers to the extent of internalization of extrinsic motivation, was associated

TABLE 2	Hierarchical regressions results about direct and	
moderation	effect	

Variable	β	SE	t	р	LLCI	ULCI
Constant	3.59	.05	42.16	<.01	3.43	3.76
Self-concordance	0.41	.06	6.85	<.01	0.29	0.52
Mentor feedback environment	0.14	.08	2.17	.02	0.01	0.28
Interaction	0.18	.06	3.11	<.01	0.07	0.30

Note: N = 700;

LLCI, Lower limit confidence interval; ULCI, Upper limit confidence interval.



FIGURE 2 Simple slopes of selfconcordance predicting life purpose at low (1 *SD* below M) and high (1 *SD* above M) levels of mentor feedback environment

TABLE 3	Exploratory analyses of the moderating effects of mentor feedback environment on the relationship between self-concordance
and life pur	pose

Variable	Moderator level	Mean	effect	SE	t	р	LLCI	ULCI
Mentor feedback	Low (M-1 SD)	-1.08	0.21	.10	2.18	.03	0.02	0.40
environment	Moderate level	0.00	0.41	.06	6.85	<.01	0.29	0.52
	High (M + 1 <i>SD</i>)	1.08	0.60	.08	7.79	<.01	0.45	0.76

Abbreviations: LLCI, Lower limit confidence interval, ULCI, upper limit confidence interval.

with life purpose and the boundary condition of this relationship. The study found that self-concordance associated with life purpose positively and when mentor feedback environment is high that the relationship is stronger than when mentor feedback environment is low.

The results support the positive association between self-concordance and life purpose. When protégés set goals that are consistent with their interests and values, they will be a higher intrinsic motivation to participate and glad to spend their energy on the tasks. At the same time, when protégés take part in activities to earn credits and complete courses, they are stimulated by extrinsic motivation and demonstrate a pursuit of goals. Although the positive function of extrinsic motivation is relatively low compared with intrinsic motivation, extrinsic motivation will play an important role in the reflection of protégés' life purpose when it is integrated with intrinsic motivation (Bono & Judge, 2003). Kashdan and McKnight (2009) have proposed three sources of the purpose of life. The first is like intrinsic motivation. Based on the interest formed by curiosity, the individual explores the outside world and self-actively. After a period, people clarify and finally form the life purpose. The second way is the individual's reaction to the living environment (reactive). In this process, the life purpose is sprouted in a transformative life event, which accelerate the individuals' understanding of their interest and external world's need. The third way is a social learning through observation and imitation of role models. The search for life purpose is not a pleasant process and may bring conflicts of goals within an individual. In the process of establishing life purpose, there will be different combinations of internal and external motivations

within individuals, resulting in staged differences in individual life purpose (Zhang, Ewalds-Kvist, Li, & Jiang, 2019). Therefore, self-concordance, through the integration of intrinsic and extrinsic motivation, affects the development of life purpose.

As expected, the results provide support to the important role of the feedback environment in developing life purpose. To promote the development of life purpose, the feedback of mentors is very important. In previous studies, informal feedback can positively affect life purpose (Dawson et al., 2019). Feedback environment is a broad concept of feedback, and feedback from mentors provides clear and descriptive information to help protégés understand their problems more deeply so that protégés receive useful feedback. In the unsupportive feedback environment, protégés do not receive useful feedback and lack initiative in feedback-seeking, thus fail to discover their life purpose (Gong & Li, 2019). Compared with supervisors and co-workers, the role of the mentor is special. Mentor feedback has the advantages of both supervisor feedback and co-worker feedback, that is, experience and accessibility. The mentor can better serve as a role model and provide feedback that is conducive to professional development and creative performance. In the mentor feedback environment, we should pay more attention to setting up role models for innovation. Mentors' expectations and goal setting for creative tasks can encourage protégés to connect ideas from different parts and find unique solutions to problems in unknown areas (Gong & Li, 2019). In the process of instructing the protégés, mentors should not only give the protégés time to think and explore, but also must be patient with the process of trial and error (Beek et al., 2019). Thus, the protégés who work in a supportive mentor

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feedback environment will get more information that is useful and support which can enhance the positive impact of goal self-concordance on life purpose.

5 | PRACTICAL IMPLICATION

The practical implication shows that nurses should be clear about their interests and values when setting goals and set the right goals from the beginning. Nurses should be good at actively reflecting on their own experiences and learn to stimulate their intrinsic motivation. For example, some nurses participate in activities only for credit and do not understand the meaning of activities on their own. They only act out of responsibility or external rewards to do something, so their thinking of life purpose will not be more deeply developed. On the other hand, nurses should take the initiative to seek feedback and ask their mentors about their usual problems, to reflect on their individual experiences and promote the development of their life purpose.

However, nurses may not be able to effectively realize the reflection of the experience. At this point, help from mentors is key to stimulating reflection. Mentors need to be sensitive to their relationship with protégés and work hard to improve the feedback environment. The mentor needs to make the protégés feel supported by the team members. The mentors should pay attention to the protégés' work stages in daily work and emphasize the importance of encouragement because informal feedback can compensate for lack of formal performance feedback. By recognizing the power of language in feedback and focusing on actions and behaviours, mentors can improve the quality of feedback. By sending feedback with clear expectations and goals and providing time to discuss and clarify the results of the feedback, the quality of the feedback can also be improved. At the same time, feedback skills can be trained. Mentors need to be trained to understand the value of feedback and how to give and receive meaningful and useful feedback. Most senior leaders can be role models for how mentors can provide accurate and useful feedback. The mentors need to fully understand the goals, expectations and values used to evaluate performance, and they need to learn to share feedback frequently, not only in formal assessments but also in everyday informal situations.

6 | LIMITATIONS AND FUTURE RESEARCH

Although we analysed the antecedent variables of life purpose by constructing a cross-sectional analysis, it is difficult to explain a causal relationship strongly. The use of batch design could sort out causality. Future studies should use longitudinal methods to verify this relationship. Some other variables can also modulate the purpose of life, such as the influence of university professors or having children. In the future, the researcher can pay more attention to these variables.

Unlike supervisors and co-workers, the mentoring relationship has different development stages (initialization, cultivation, separation,

reorganization) and the characteristics of an effective mentor feedback environment at different stages are necessarily different. Category growth analysis can test the optimal combination model of the dimensions of mentor feedback environment that effectively improves performance at different stages of the mentoring relationship (Gong & Li, 2019). This new research perspective can add to previous research results and obtain more direct and influential research results.

7 | CONCLUSION

Self-Determination Theory offers a new perspective on life purpose. This change of perspective highlights how self-concordance is a potential path to life purpose. Based on our findings, when nurses work in a supportive mentor feedback environment established, nurses' life purpose can be clarified and enhanced through perceived selfconcordance level improving.

ACKNOWLEDGEMENTS

The authors gratefully acknowledge all the participants.

CONFLICT OF INTEREST

No conflict of interest has been declared by the author(s).

AUTHOR CONTRIBUTIONS

ZG and VL: Conception and design, or acquisition of data, or analysis and interpretation of data. WH and NZ: Manuscript drafting or revising it critically for important intellectual content. ZG, VL and WH: Final approval of the version to be published. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content. ZG and NZ: Accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

ETHICAL APPROVAL

This study was conducted with the approval of the ethics committee of Liaocheng University (2017_7_14).

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How to cite this article: Gong Z, Van Swol LM, Hou W, Zhang N. Relationship between protégés' self-concordance and life purpose: The moderating role of mentor feedback environment. *Nursing Open.* 2020;7:1616–1622. <u>https://doi.org/10.1002/nop2.545</u>