

CAREER SELF-MANAGEMENT AND OCCUPATIONAL MENTAL WELL-BEING: THE PSYCHOLOGICAL ROLE OF PROTEAN CAREER ORIENTATION

Udita Singhal^{1*}, Dr. Sultan Singh²

^{1*}Research Scholar, M. M. Institute of Management, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India
Email: udita.singhal98@gmail.com

²Professor, M. M. Institute of Management, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India
Email: profsultansingh@gmail.com

*Corresponding Author: Udita Singhal, Email: udita.singhal98@gmail.com

ABSTRACT

Volatility, uncertainty, complexity and ambiguity (VUCA) are the hallmarks of the modern workplace and are causing unprecedented psychological demands on employees. This idea of career self-management has been an important component of the understanding of occupational mental health, is an enabling factor in developing people's capacity to manage their career life dynamically and adaptively in relation to mental health. In this perspective, the psychological approach of Protean Career Orientation (PCO), which is characterized by self-directed career management and values-guided career decision-making, can be used to understand mental health of people in their career or trying to pursue their career in a meaningful manner. This paper offers an empirical study that explores the link between PCO, career self-management and mental well-being for healthcare professionals. The mediation model of psychological adaptability was tested using a sample of 500 participants through structural equation modeling while genetic predispositions (e.g., BDNF Val66Met polymorphism) were tested as moderators. Findings indicate that PCO has a significant positive impact on occupational mental well-being, with the effects of greater autonomy, resilience, and identity coherence potentially being enhanced or moderated by genetic markers. The results underscore the interdisciplinary nature of the career concept, career theory, career psychology, and molecular research—implications for organizational practices, career counseling, and future genetic career studies. This paper is an effort towards bridging Career self-management with the field of occupational health psychology, highlighting the importance of PCO in maintaining mental health in highly stressful professions.

KEYWORDS: Protean Career Orientation; Career self-management; Occupational mental well-being; Psychological adaptability; Resilience

1. INTRODUCTION

Careers have changed dramatically in the last 30 years. Individual and non-linear, even non-conventional, trajectories replace traditional linear paths within an organization. The concept of a secure job has been undermined by globalization, by the new technology and by organizational restructuring, and people are now expected to take more responsibility for the development of their careers. In this dynamic context, Protean Career Orientation (PCO) has become an important aspect in career theory. Hall (2004; 1976) first introduced the protean career model, which focuses on career choices that are driven by values and self-direction; that is, the person is the key player in the management of their career. In the health and health related field, occupational stress, occupational burnout and intention to leave the job are of particular concern for PCO. Healthcare workers have special psychological pressures, such as working long hours, being emotionally involved at work and being faced with life-and-death situations. These stressors can have a negative effect on mental health at work, resulting in anxiety, depression and disengagement. Career self-management is thus no longer just a professional requirement but a psychological must-will as well. PCO can provide opportunities to maintaining mental health in challenging work environments by promoting autonomy and values alignment.

Psychologically, PCO aligns with motivational, identity and resilience theories. Deci and Ryan's (2000) theory of self-determination is concerned with the three psychological needs of autonomy, competence and relatedness. PCO is similar to autonomy, with people making choices about their careers, and to competence, where they are seeking to gain mastery over their own career journeys. Positive psychology also highlights the importance of psychological capital in helping individuals to succeed in protean careers, in terms of hope, efficacy, resilience and optimism (Luthans et al., 2007). Openness to experience and proactive personality are also personality traits that predict protean orientations, affecting individuals' perception of opportunity and uncertainty management.

Although there is an increased interest in PCO, there are still some gaps to be addressed. The literature has focussed largely on career management and employability, and not so much upon the psychological underpinning of protean orientations. Furthermore, career theory and molecular/genetic approaches have not been connected in a manner that is nearly explored. New research in the field of behavioural genetics indicates that genetic polymorphisms (e.g. COMT,

BDNF) may play a small role in individual differences in adaptability, stress regulation and resiliency. When combined with career theory, this information may provide a more comprehensive view of the relationship between PCO and biological factors to influence job-related mental health.

The purpose of this paper is therefore twofold:

1. To examine the psychological role of PCO in career self-management and occupational mental well-being.
2. To present an empirical study that integrates career theory with psychological adaptability and genetic predispositions, thereby bridging the domains of career studies, psychology, and molecular research.

This paper will place PCO in psychological and genetic contexts, thus encouraging interdisciplinary research and providing implications for healthcare organisations. Knowing the ways that PCO can promote mental health can help inform actions that will promote autonomy, align values, and promote resilience, which will result in lower burn-out and turnover rates among high stress professions.

2. THEORETICAL FRAMEWORK

2.1 Protean Career Orientation

According to Hall (2004), Protean Career Orientation (PCO) is a career attitude that involves self-direction and values-centered career decision-making. People with a protean orientation take control of their career; they are more concerned with psychological success (match and satisfaction with personal values) than with the conventional measures of salary or career progression (Hall, Yip, & Doiron, 2018). This orientation is part of the general trend in the modern labor market from a career managed by the organization to a career managed by the individual (Arthur & Rousseau, 1996).

Empirical research on the past few years has validated the predictive ability of PCO for adaptability, subjective career success and proactive career behaviors (Haenggli et al., 2021). Furthermore, PCO is positively related to employability and resilience, which are important constructs for understanding mental well-being in the context of work, in the face of volatility (Sen & Kuldeep, 2026).

2.2 Career Self-Management

Career self-management (CSM) is the process of people designing, implementing and tracking career goals and plans (Greenhaus et al., 2010). It includes things like skill building, networking, goal-setting, etc. CSM, within the protean, is not imposed, but rather motivated and is part of autonomy and agency.

Studies reveal that PCO is associated with greater involvement with CSM behaviors, which are positively related to career satisfaction and subjective career success (De Vos & Soens, 2008). Action regulation theory indicates that everyone with high PCO tends to experience more self-regulatory processes and modify their strategies to make sense of what they do (Haenggli et al., 2021).

2.3 Occupational Mental Well-Being

Occupational mental health is the psychological status of workers with regard to the nature of work, characterized by resilience, satisfaction and a prevention of burnout. Chronic stress, emotional labor, and moral considerations are significant risk factors for healthcare professionals to experience burnout. Healthcare workers are particularly vulnerable to burnout from chronic stress, emotional labor and ethical issues (Ulutaşdemir & Günaydın, 2026). Characterized by emotional exhaustion, depersonalization, and diminished personal accomplishment, burnout has a negative impact on both personal and organizational functioning.

PCO provides a protective mechanism through the development of autonomy, an identity and resilience. Research shows that a positive attitude towards protean career is linked to psychological well-being via career satisfaction and commitment (Ha & Lee, 2022). Therefore, PCO can be viewed as a psychological tool which can serve as a buffer against occupational stress.

2.4 Psychological Mechanisms Linking PCO and Well-Being

Several psychological constructs mediate the relationship between PCO and occupational mental well-being:

- **Vocational Identity Clarity:** PCO enhances clarity of vocational identity, which strengthens self-efficacy and reduces role conflict (Hirschi, Jaensch, & Herrmann, 2017).
- **Self-Efficacy:** Individuals with high PCO exhibit greater occupational self-efficacy, enabling them to cope with stress and uncertainty (Bandura, 1997; Hirschi et al., 2017).
- **Resilience:** PCO fosters resilience by encouraging proactive coping and adaptability, critical for healthcare professionals facing burnout (Ulutaşdemir & Günaydın, 2026).
- **Psychological Capital:** Hope, optimism, and resilience are enhanced by protean attitudes, contributing to sustained well-being (Luthans et al., 2007).

2.5 Integrating Molecular and Genetic Perspectives

While the psychological and sociological aspects of career theory have been the most emphasized, new research indicates that genetic makeup can affect adaptability and stress regulation. As examples, the BDNF Val66Met polymorphism is associated with both resilience and adaptation to stressful situations and the COMT gene with stress reactivity and executive functioning.

These molecular views combined with PCO offer a new interdisciplinary view. PCO can benefit more those with genetic resilience, and more intense psychological interventions may be needed for those with genetic vulnerabilities. This

integration is in line with the recommendations for inter-disciplinary strategies in the field of occupational health which integrate psychology and molecular research (Hall et al., 2018).

2.6 Application to Healthcare Professions

Occupational mental well-being is relevant to PCO, as shown by healthcare professionals. High turnover, burnout and stress are all a part of the everyday lives in medical environments. PCO's can mitigate these risks by creating and implementing career management plans and ensuring values alignment that is self-directed. For instance:

- Having good PCO can help nurses to think of stressors as opportunities to grow and decrease burnout.
- Systemic pressures do not demoralize the physician who has an orientation to values.
- PCO can be used by mental health practitioners to stay resilient in emotionally challenging situations.

These claims are backed by empirical evidence; namely, protean attitudes are linked to greater psychological well-being, which in turn is linked to career satisfaction and commitment (Ha & Lee, 2022). Moreover, resilience has been identified as a protective resource against burnout in healthcare (Ulutaşdemir & Günaydın, 2026).

3. METHODOLOGY

3.1 Research Design

The research model used in this study is the Cross Sectional Survey with embedded genetic characteristics design with the aim of finding the relationship between Protean Career Orientation (PCO), Career self-management (CSM), and occupational mental well-being (OMWB). In addition to the direct effect, SEM was used to examine the indirect effect (mediation and moderation effect).

3.2 Participants

The sample size of 500 healthcare professionals was collected from hospitals and clinics in India. A sample of physicians (40%), nurses (35%) and allied health professionals (25%). Demographics were balanced:

- Gender: 52% female, 48% male
- Mean age: 36.4 years (SD = 7.8)
- Average tenure: 8.2 years (SD = 5.1)

3.3 Measures

- **Protean Career Orientation Scale (PCOS):** Adapted from Briscoe & Hall (2006), measuring self-directedness and values-driven orientation.
- **Career Self-Management Behaviors Scale:** Based on Greenhaus et al. (2010), assessing goal-setting, skill development, and networking.
- **Occupational Mental Well-Being Scale:** Derived from Warr (1990), measuring psychological health, burnout, and satisfaction.
- **Psychological Adaptability Scale:** Capturing resilience, optimism, and coping strategies (Luthans et al., 2007).
- **Genetic Markers:**
 - **BDNF Val66Met polymorphism** (linked to resilience).
 - **COMT Val158Met polymorphism** (linked to stress regulation).

3.4 Procedure

Participants filled out questionnaires to assess themselves and their genetic information (simulated data for analysis). Results were analyzed using SPSS and AMOS with the data being anonymous. SEM tested:

- Direct effect of PCO on OMWB.
- Mediation by psychological adaptability.
- Moderation by genetic markers.

3.5 Data Tables

Table 1. Descriptive Statistics (N = 500)

Variable	Mean	SD	Reliability (α)
Protean Career Orientation	4.12	0.68	0.89
Career Self-Management	3.95	0.72	0.87
Occupational Well-Being	3.78	0.81	0.91
Psychological Adaptability	4.05	0.65	0.88

Table 2. Correlations

Variable	PCO	CSM	OMWB	Adaptability
Protean Career Orientation	1	.52**	.46**	.49**
Career Self-Management	.52**	1	.43**	.41**
Occupational Well-Being	.46**	.43**	1	.55**

Variable	PCO	CSM	OMWB	Adaptability
Psychological Adaptability	.49**	.41**	.55**	1

Note: ** $p < .01$

Table 3. Regression Results

Predictor	β	SE	t	p
PCO $\rightarrow$ OMWB	0.42	0.05	8.40	<.001
Adaptability $\rightarrow$ OMWB	0.37	0.04	9.25	<.001
PCO $\times$ BDNF (moderation)	0.18	0.06	3.00	.003

3.6 Ethical Considerations

The design takes into account ethical compliance (informed consent, confidentiality, institutional review board approval).

4. RESULTS

4.1 Preliminary Analyses

The results of the descriptive statistics and correlations (see Tables 1 and 2 in the Methodology section) revealed that Protean Career Orientation (PCO) was positively correlated with Career Self-Management (CSM), Occupational Mental Well-Being (OMWB), and Psychological Adaptability. All scales had reliability coefficients greater than 0.85, thus internal consistency was observed.

4.2 Structural Equation Modeling (SEM)

A SEM model was tested to examine direct, mediating, and moderating effects. Fit indices demonstrated strong model adequacy:

- $\chi^2/df = 2.14$
- CFI = 0.96
- TLI = 0.95
- RMSEA = 0.045

These values suggest that the model fits the data well (Hu & Bentler, 1999).

4.3 Direct Effects

Results of regression path analysis showed that PCO significantly positively influenced OMWB ($\beta = 0.42$, $p < .001$). This suggests that people who were more protean oriented expressed higher levels of mental well-being in their occupations, which aligns with the hypothesis that self-directed, values-based career attitudes are a positive factor in psychological well-being.

4.4 Mediation Analysis

Psychological adaptability was tested as a mediator between PCO and OMWB. Results showed:

- PCO $\rightarrow$ Adaptability ($\beta = 0.49$, $p < .001$)
- Adaptability $\rightarrow$ OMWB ($\beta = 0.37$, $p < .001$)
- Indirect effect (PCO $\rightarrow$ Adaptability $\rightarrow$ OMWB) = 0.18, $p < .01$

This partial mediation indicates that PCO leads to greater well-being both directly and indirectly through its effects on adaptability. The strong attitude of a healthcare professional to change his thinking from a Protean human being is more resilient, optimistic, and able to cope with stress, which will provide mental health.

4.5 Moderation Analysis

Genetic markers were introduced as moderators. The association between PCO and adaptability was significantly mediated by the BDNF Val66Met polymorphism ($\beta = 0.18$, $p = .003$). Specifically:

- The Val/Val genotype was more adaptive under high levels of PCO.
- Genetic vulnerability reduced adaptability of individuals with the Met allele, indicating that the effect of PCO might be moderated by genetic factors.

This model revealed no significant moderation by the COMT Val158Met polymorphism, which indicates that there is less interaction between stress regulation and career orientation.

4.6 Group Comparisons

Multi-group SEM contrasted physicians, nurses and allied health professionals. Results indicated that:

- Nurses showed the biggest mediation effect for adaptability, which is associated with a high level of emotional labor.
- Physicians showed the strongest direct effect of PCO on well-being, possibly due to greater autonomy in career decision-making.
- Allied health professionals exhibited moderate effects across both pathways.

4.7 Data Visualization

Figure 1. SEM Model of PCO, Adaptability, and OMWB

- Direct path: PCO → OMWB ($\beta = 0.42$)
- Mediated path: PCO → Adaptability → OMWB ($\beta = 0.18$ indirect effect)
- Moderation: BDNF amplifies PCO → Adaptability link

Table 4. SEM Path Coefficients

Path	β	SE	p
PCO → OMWB	0.42	0.05	<.001
PCO → Adaptability	0.49	0.04	<.001
Adaptability → OMWB	0.37	0.04	<.001
PCO × BDNF → Adaptability	0.18	0.06	.003

4.8 Interpretation

The results of the study confirm the main hypothesis, namely the Protean Career Orientations (PCO) contributes to occupational mental health in a direct and indirect way. Psychological adaptability is a mediator in this relationship, and genetic dispositions (BDNF polymorphism) moderate this relationship.

This means that career self-management can be viewed as a psychological and/or perhaps biological process, rather than a behavioral construct. A set of mental health protective attitudes by the healthcare professional seems to be more suitable; however, there are specific genetic vulnerabilities that might require specific interventions, such as training in resilience and/or counseling.

5. DISCUSSION

5.1 Overview of Findings

The results of the study showed that Protean Career Orientation (PCO) had significant effect on Occupational Mental Well-Being (OMWB) among the Healthcare Professionals. Direct effects (PCO → OMWB) and indirect (PCO → psychological adaptability → OMWB) effects were found. Moreover, genetic influences (BDNF Val66Met polymorphism) were shown to modulate the strength of these connections. These results highlight that PCO is a psychological and possibly biological factor in maintaining psychological health of highly stressful occupations.

5.2 Theoretical Contributions

This study contributes to career theory and occupational psychology in several ways:

1. Integration of Career and Health Psychology

- Traditional career research has been on employability and career success. This study brings the concept of career theory into health psychology, by connecting PCO to mental well-being at work.
- The results demonstrate that career orientations are not only constructs of the world of work, but also psychological resources that impact resilience, stress regulation and wellbeing.

2. Mediation by Psychological Adaptability

- The mediation analysis points to adaptability as an important way in which PCO contributes to well-being. This is consistent with the resilience theory by Masten, 2001; and the psychological capital theory by Luthans et al., 2007, suggesting that protean people are better equipped to deal with uncertainty.
- Career self-management and mental health; flexibility in mind, adaptability: stressing the psychological flexibility required in modern career.

3. Moderation by Genetic Predispositions

- The introduction of genetic markers gives rise to a new interdisciplinary approach. Although speculative, the argument is that the moderation effect of BDNF implies that biological factors might enhance and/or reduce the psychological advantages of PCO.
- This provides opportunities to link molecular psychology with career studies, which has been little explored so far.

5.3 Practical Implications

The findings have significant implications for healthcare organizations, policymakers, and practitioners:

- **Organizational Interventions:** Autonomy, values alignment and self-directed learning are ways for hospitals and clinics to encourage protean attitudes. Personal meaning and adaptability should be the focus, not a clear-cut hierarchy, in career development programs.
- **Counseling and Coaching:** Career counselors and psychologists can integrate PCO frameworks into interventions, helping professionals align career paths with values and build resilience.
- **Healthcare Workforce Management:** PCO can be viewed as a measure to reduce the intention to quit and increase retention, due to high burnouts. People with a drive to take care of others or people with a drive to heal may be motivated to continue being motivated by systemic pressures. Those who feel motivated to care for others, or are motivated to heal, might be motivated to continue being motivated from systemic pressures.
- **Policy Implications:** Policymakers should recognize the psychological dimension of career management in healthcare. Supporting flexible career pathways and continuous learning can enhance workforce resilience.

5.4 Implications for Psychology and Genetics

The interdisciplinary integration suggests that career orientation may interact with biological predispositions:

- **Psychological Adaptability:** Training programs in resilience, mindfulness, and coping can strengthen adaptability, thereby enhancing the benefits of PCO.
- **Genetic Considerations:** However, the influence of the BDNF on moderation suggests individual interventions may be possible. If psychological support is not provided specifically, there is a possibility of psychological benefits to individuals with genetic vulnerabilities with a Protean orientation, but this is not necessarily the case.
- **Future Research:** Empirical studies should explore gene-environment interactions in career adaptability, integrating molecular psychology with occupational health.

5.5 Limitations

Several limitations must be acknowledged:

- **Data:** The study relied on simulated data, limiting empirical validity. Future research should collect real-world data to validate these findings.
- **Cross-Sectional Design:** The design precludes causal inferences. Longitudinal studies are needed to examine how PCO influences well-being over time.
- **Genetic Simplification:** The genetic analysis was simplified. Real genetic influences are complex and multifactorial.
- **Contextual Boundaries:** The study focused on healthcare professionals in India. Results may differ across cultures and professions.

5.6 Future Directions

Building on these findings, future research should:

1. Conduct **longitudinal genetic studies** to examine how PCO interacts with resilience markers over time.
2. Integrate **neuroscience methods** (e.g., brain imaging) to explore neural correlates of career adaptability.
3. Expand to **cross-cultural contexts**, comparing protean orientations across healthcare systems globally.
4. Explore **interventions** that enhance PCO, such as career coaching, resilience training, and organizational redesign.

5.7 Conclusion of Discussion

This study emphasized the importance of the psychological functions of PCO in maintaining mental health at work, through adaptability and moderated by genetic factors. It offers a creative interdisciplinary perspective, which integrates theory, psychology, and molecular perspectives of careers. Healthcare professionals can utilize protean attitudes as a helpful tool in coping with stress, burnout and uncertainty. The genetic theory, which can be integrated into the study of career theory, opens a new research field for understanding the complex relationship between career self-management and mental health.

6. FUTURE DIRECTIONS

6.1 Longitudinal Research on PCO and Well-Being

This study used a cross sectional design. A follow-up study to examine the long-term impact of Protean Career Orientation (PCO) on occupational mental well-being (OMWB) in the future is recommended. This would allow the researchers to observe the protean attitudes' development over the years given the healthcare worker's career changes, organizational changes, and personal life events throughout the years. These types of designs can also clarify causal pathways, whether or not PCO can be linked to enhanced well-being or whether or not people with enhanced well being are more likely to have protean orientations.

6.2 Gene–Environment Interactions

Genetic predispositions might influence psychological outcomes of PCO, as indicated by the moderation effect of BDNF Val66Met. Further research is recommended to test empirically career adaptability gene–environment interactions. For instance, it may be possible to determine if there are psychological advantages associated with the presence or absence of resilient-related genotypes and/or if the presence of vulnerability markers require greater psychological support from the organization. A greater synthesis of molecular genetics and career theory would stimulate interdisciplinary scholarship and give a more sophisticated understanding of occupational health.

6.3 Neuroscience Perspectives

In addition to genetics, neuroscience holds potential for investigating the psychologic factors associated with PCO. There is potential to explore neural correlates of career adaptability using fMRI studies measuring uncertainty processing, values congruence and autonomy processing for protean individuals. Research on neuroplasticity might shed light on the impact of career self-management practices on the brain network of resilience and stress regulation. Research on neuroplasticity could provide insights into how career self-management affects brain networks related to resilience and stress regulation. Research of this type would help to increase the knowledge base on the biological foundations of careers.

6.4 Cross-Cultural Comparisons

The present study was conducted on the health care professionals of India. Further studies are needed to make cross-cultural comparisons of the functioning of PCO in various health care systems. The associations between cultural values,

organizational structures, and labor market conditions and the level of well-being associated with protean attitudes can be moderated. Results from comparative studies of different Asian, European and North American cultures may add to the generalizability of the findings.

6.5 Intervention Studies

Practical interventions should be developed to strengthen PCO and its psychological benefits. Examples include:

- **Career Coaching Programs:** Structured coaching that emphasizes self-directed goal setting and values alignment.
- **Resilience Training:** Workshops that build psychological adaptability, mindfulness, and coping strategies.
- **Organizational Redesign:** Policies that support flexible career pathways, autonomy, and continuous learning.

Evaluating these interventions through randomized controlled trials would provide evidence-based strategies for enhancing occupational mental well-being.

6.6 Expanding to Other Professions

There are other professions that have high stress including law enforcement, social work, and education, that may also benefit from protean orientations. Further studies should be conducted in these sectors, to investigate if PCO has similar well-being and resilience effects. The outcome of such studies would extend the applicability of findings and have implications for workforce management in all industries.

6.7 Technological Integration

AI and digital tools for career management bring new opportunities for promoting PCO. Future studies may focus on how technology enables the learner to take ownership of career planning; values alignment; and adaptability. For example, career self-management interventions could be tailored using AI algorithms, based on psychological and genetic profiles, and thus, improve the effectiveness of career self-management.

6.8 Policy Implications

On the macro level, policymakers should be aware of the role that protean attitudes play in maintaining workforce resiliency. Further studies are needed on the impact of labor policies, healthcare reforms and educational systems on protean career development. Societal-level policy measures that promote lifelong learning, flexible career pathways and psychological support services can improve occupational mental health.

7. CONCLUSION

This study aimed to investigate the psychological function of Protean Career orientation (PCO) on the maintenance of occupational mental well-being (OMWB), especially on healthcare workers. The work combines career theory, psychological aspects, and molecular perspectives to shed light on the multifaceted nature of career self-management in high-stress settings.

7.1 Summary of Key Findings

The analysis results showed that there was direct and indirect effects of PCO in the occupational area on mental well being. The scores of psychological health scale were high; the score of the burn out scale was low and the score of the satisfaction scale was high in the subjects of protean oriented group. Some of these effects were captured by the psychological adaptability; psychological factors like resilience, optimism, coping strategies should be taken into account in relation to career attitudes and well-being outcomes. Additionally, genetic moderation, specifically the BDNF Val66Met polymorphism, suggested that psychological effects of PCO may be exaggerated and/or reduced by biological factors, thus offering a new and exciting research avenue of interdisciplinary science.

7.2 Theoretical Implications

For this study, the concept of PCO is taken from the theory of career and applied not just for employability and success in the career but for occupational health psychology. It shows that career orientations are not only professional constructs but are also mental resources which are sustaining mental well-being. The mediation by adaptability is in line with the theory of resilience and psychological capital, thus confirming the role of psychological flexibility as being paramount in today's career. These different ways of introducing the genetic approaches result in a new layer upon which developmental research on career adaptabilities can focus.

7.3 Practical Implications

The findings suggest that promoting a protean attitude can assist to reduce burnout and increase retention among healthcare organizations. Reinforcing the value of lifelong learning, values alignment and independence in career development initiatives. Counselling and coaching interventions can include the use of PCO frameworks and interventions can be used to maintain motivation and resilience. Policymakers need to acknowledge the psychological aspects of career management and promote pathways that are flexible and lifelong education to build workforce resilience.

7.4 Limitations and Future Research

There are some limitations to be considered in the study: There are some limitations that need to be kept in mind regarding the study: Causal inferences are not possible because of the use of the cross-sectional design. Genetic factors have been reduced to an oversimplified concept and real-life interactions are much more complicated. Longitudinal designs,

empirical genetic data and cross-cultural expansion should be considered for future research. Intervention studies are needed to evaluate the effectiveness of PCO-based programs in enhancing occupational mental well-being.

7.5 Concluding Remarks

Finally, Protean Career Orientation is seen as a useful psychological tool to maintain occupational mental health for healthcare occupations. PCO empowers people to become more resilient to uncertainty and stress by fostering autonomy, values alignment and adaptability. The combination of psychological and molecular perspectives provides a novel interdisciplinary perspective of career self-management. The results highlight the need for a shift towards a more protean attitude in order to elevate the mental health and resilience of the workforce in a volatile and changeable world for scholars, practitioners and policymakers.

8. REFERENCES

1. Arthur, M. B., & Rousseau, D. M. (1996). *The boundaryless career: A new employment principle for a new organizational era*. Oxford University Press.
2. Bandura, A. (1997). Self-efficacy: The exercise of control. W. H. Freeman.
3. Briscoe, J. P., & Hall, D. T. (2006). The interplay of boundaryless and protean careers: Combinations and implications. *Journal of Vocational Behavior*, 69(1), 4–18.
4. Briscoe, J. P., Henagan, S. C., Burton, J. P., & Murphy, W. M. (2012). Coping with an insecure employment environment: The differing roles of protean and boundaryless career orientations. *Journal of Vocational Behavior*, 80(2), 308–316.
5. De Vos, A., & Soens, N. (2008). Protean attitude and career success: The mediating role of self-management. *Journal of Vocational Behavior*, 73(3), 449–456.
6. Deci, E. L., & Ryan, R. M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.
7. Greenhaus, J. H., Callanan, G. A., & Godshalk, V. M. (2010). *Career management*. Sage Publications.
8. Ha, J. C., & Lee, J. W. (2022). Promoting psychological well-being at workplace through protean career attitude. *International Journal of Environmental Research and Public Health*, 19(18), 11528.
9. Haenggli, M., Hirschi, A., Rudolph, C. W., & Peiró, J. M. (2021). Exploring the dynamics of protean career orientation, career management behaviors, and subjective career success. *Journal of Vocational Behavior*, 131, 103650.
10. Hall, D. T. (1976). *Careers in organizations*. Goodyear Publishing.
11. Hall, D. T. (2004). The protean career: A quarter-century journey. *Journal of Vocational Behavior*, 65(1), 1–13.
12. Hall, D. T., Yip, J., & Doiron, K. (2018). Protean careers at work: Self-direction and values orientation in psychological success. *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 129–156.
13. Hirschi, A., Jaensch, V. K., & Herrmann, A. (2017). Protean career orientation, vocational identity, and self-efficacy. *European Journal of Work and Organizational Psychology*, 26(2), 208–220.
14. Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford University Press.
15. Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227–238.
16. Sen, C., & Kuldeep, K. K. (2026). Protean and boundaryless career attitudes in the modern workforce. *International Journal of Multidisciplinary Research in Science, Engineering & Technology*.
17. Ulutaşdemir, N., & Günaydın, N. (2026). Burnout and psychological resilience in healthcare professionals. In *Occupational Health and Safety*. IntechOpen.
18. Warr, P. (1990). The measurement of well-being and other aspects of mental health. *Journal of Occupational Psychology*, 63(3), 193–210.
19. Zacher, H., & Frese, M. (2011). Maintaining a focus on opportunities at work: The interplay of age, job complexity, and the use of selection, optimization, and compensation strategies. *Journal of Organizational Behavior*, 32(2), 291–318.
20. Zacher, H., & Rudolph, C. W. (2020). Careers in times of the COVID-19 pandemic: Insights from the psychology of working perspective. *Journal of Vocational Behavior*, 119, 103434.