

Assessing the Psychological Well-being of TVET Stakeholders: Implications for Sustainable Workforce Development

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Abstract

The psychological well-being of the community is crucial for sustaining a productive and effective workforce. However, there is limited research on integrating well-being into Technical and Vocational Education and Training (TVET) strategies to improve community well-being, specifically psychological and mental health. The purpose of this study is to assess psychological well-being across five domains: positive emotions, negative emotions, life satisfaction, psychological functioning, and social well-being, besides to emphasizing wellbeing and TVET sustainability. Data were collected from 3062 civil officials in the Ministry of Rural and Regional Development (KKDW) by using random sampling methods, using the Malaysian Psychological Well-being Index (IKPM). Findings reveal a moderate level of composite index of psychological well-being among civil servants that includes policymakers and instructors of TVET. These results underscore the need for specific interventions to enhance civil servants' well-being. Improving the psychological well-being index can aid in designing and managing TVET programs, leading to better educational outcomes and workforce development. Implementing personalized programs targeting various well-being areas could significantly improve mental health, fostering a more supportive and productive work environment. Additionally, developing detailed civil servant profiles to identify individuals or groups needing precise psychological interventions is planned. Integrating well-being into TVET initiatives can further enhance psychological well-being by equipping TVET stakeholders with the necessary skills and knowledge to perform their roles effectively, thereby increasing job satisfaction and reducing stress levels. These findings highlight the importance of targeted interventions to improve the overall well-being of TVET for sustainable growth.

1. Introduction

The psychological well-being of civil servants is crucial for the efficient and effective functioning of public administration. Civil servants, who play a pivotal role in implementing government policies and providing essential public services, often face unique stressors and challenges in their professional environment. These can include high workloads, bureaucratic constraints, public scrutiny, and the pressure to maintain high service delivery standards. The Malaysian Psychological Well-Being Index (IKPM) for civil servants has been developed based on hedonic well-being (Diener et al., 1985; Goodman et al., 2018) and eudaimonic well-being (Ryff et al., 2021; Ryff & Singer, 2008) to address these challenges and promote a healthier work environment. The IKPM measures mental health and well-being across five domains; positive emotions, negative emotions, life satisfaction, psychological functioning, and social well-being. This index aims to provide a comprehensive measure of the mental health and well-being of individuals working in the public sector. By assessing various dimensions of psychological well-being, such as stress levels, job satisfaction, emotional health, and work-life balance, the IKPM seeks to identify areas of concern and highlight opportunities for improvement.

The mental health of workforce is critical for their overall well-being and effectiveness in working environment. As Salleh and Sulaiman (2017) indicates that the perceived importance of competencies and roles shifts with demographics and organizational culture, underscoring the need for human resource practitioners in Malaysian organizations to prioritize training and development for improved organizational performance. This focus on organizational and professional development is crucial for Technical and Vocational Education and Training (TVET) as it enhances skill-building, which can positively impact psychological well-being by increasing job satisfaction and reducing stress among workers. Identifying Technical and Vocational Education and Training (TVET) programs that enhance psychological well-being is crucial for fostering overall mental health and professional success. TVET programs not only equip individuals with specific skills and qualifications but also significantly impact their psychological well-being. Effective TVET programs can enhance self-efficacy, reduce anxiety related to job uncertainty, and promote a sense of achievement and purpose. Ensuring that TVET programs address psychological aspects as well as technical skills can lead to more holistic development and job satisfaction (Rokeman et al., 2024). Thus, it is important to identify a suitable well-being taxonomy in TVET programs aimed at enhancing psychological well-being among TVET stakeholders, emphasizing the importance of targeted interventions to improve mental health scores and job satisfaction to ensure sustainable workforce development.

1.1 Psychological Well-Being

Psychological well-being is a fundamental value in people's lives and an indicator of society's success. Priya and colleagues (2023) investigate the effects of work stress on employee performance and well-being in organizational contexts. Their research is to investigate how psychological well-being and the ability to manage workloads affect workplace performance and productivity. The investigation emphasizes the importance of effective stress management in promoting employee growth and development, which contributes to organizational success (Priya et al., 2023). Park et al. (2022) contribute to the notion of emotional well-being (EWB) by bringing together multiple perspectives and definitions from many fields. Their research creates a preliminary framework for understanding EWB, emphasizing its key characteristics and implications for assessment, causes, and consequences. The authors suggest that a shared understanding of EWB is essential for designing effective intervention strategies to promote psychological well-being in a variety of circumstances. Furthermore, the extent of emotional social support networks seemed to worsen mental health issues specifically among women, indicating intricate connections between social networks and mental health outcomes (Schelleman-Offermans et al., 2024). Furthering the discussion on psychological well-being, Kartol et al. (2024) discovered that higher emotional intelligence is linked to decreased perceived stress and improved life satisfaction via psychological resilience. The study underlines the need for developing emotional intelligence to improve mental health outcomes, as well as the relevance of psychological resilience in mitigating the detrimental impacts of stress on life satisfaction. Additionally, Voukelatou et al. (2021) advocate for integrating new data sources into standard survey methods to improve the measurement and understanding of well-being. By combining objective and subjective approaches, researchers can uncover unexplored dimensions of well-being and inform evidence-based policies for public health and social development.

The psychological well-being of individuals can be influenced by various demographic factors. These factors, including age, gender, socioeconomic status, race or ethnicity, and education level, create a complex relationship with psychological well-being. For instance, studies have identified funding and family support as significant challenges for women entrepreneurs in Malaysia (Zainuddin et al., 2017). Additionally, the government's aim to increase high-skilled jobs to 50% of the workforce by 2020 has been hindered by a shortage of professional workers due to emigration (Puteh et al., 2012). The fast-paced life in this rapidly developing country also impacts citizens' stress levels and life satisfaction (Puteh et al., 2011). Moreover, research suggests that ageism poses a significant threat to the well-being of older adults (Kang & Kim, 2022; Karim et al., 2016). Understanding how

demographic factors shape psychological well-being is crucial for effective organizational development in Malaysian organizations (Salleh and Sulaiman, 2017). In the realm of public administration, Zain et al. (2023) demonstrate that data analysis can enhance civil servants' psychological well-being by promoting transparent and accountable decision-making. Collectively, these studies underscore the multifaceted nature of psychological well-being and its critical role in both individual and organizational success. They highlight the importance of stress management, emotional intelligence, and supportive social networks in fostering a healthy work environment and improving overall life satisfaction.

1.2 Malaysian Psychological Well-being Index (IKPM)

The Psychological Well-Being Index (PWBI) is a comprehensive tool for evaluating and quantifying an individual's psychological well-being. This index considers various aspects of mental health, such as emotional balance, life contentment, and the presence of positive relationships. By assessing these traits, the PWBI provides valuable insights into an individual's overall mental and emotional health, assisting in identifying areas that may require attention or improvement. Furthermore, it serves as a valuable resource for mental health practitioners as they develop individualized intervention approaches to improve psychological well-being. The IKPM model incorporates both hedonic (Diener et al., 1985 & 2010) and eudaimonic (Ryff and Singer, 2020; Ryff et al., 2021) techniques, as described in the IKPM Concept Book 2018 (JPA, 2018). This paradigm investigates psychological well-being using five domains: positive emotion, negative emotion, life satisfaction, psychological functioning, and social well-being. Hedonic well-being prioritizes pleasure over pain avoidance. It emphasizes the necessity of experiencing positive emotions while limiting negative ones. This concept is commonly associated with subjective well-being, which includes life satisfaction, the presence of a positive mood, and the absence of a negative mood. Recent research has shown that hedonic well-being is associated with a variety of health benefits, including decreased stress and increased general life satisfaction (Diener et al., 2018; Tay & Kuykendall, 2017). Eudaimonic well-being, on the other hand, emphasizes achieving human potential and living in accordance with one's true self. It entails the pursuit of meaningful goals, personal development, and self-acceptance. According to research, eudaimonic well-being is associated with a greater sense of fulfillment and long-term satisfaction (Ryff & Singer, 2020; Waterman, 2019). Unlike hedonic well-being, which is more about immediate pleasure, eudaimonic well-being requires a longer-term commitment to personal development and the cultivation of virtues. Both concepts are crucial for a comprehensive understanding of human well-being (Ryan & Deci, 2017).

The finding that TVET colleges have a toxic or unhealthy work environment suggests that the sector has an unhealthy culture and a poor leadership and management cohort. Leaders need to be capacitated so that they can positively contribute to the development of their colleges and their lecturers. Leadership deficits affect the morale of the lecturers (Rachman, A., 2021). The Psychological Well-Being Index for Civil Servants can be linked to TVET by emphasizing the importance of psychological well-being for educators and administrators in the TVET system. Ensuring the mental health and well-being of TVET professionals can lead to more effective teaching, better student outcomes, and a more productive and positive educational environment. Additionally, understanding the psychological well-being of those involved in TVET can help in developing targeted interventions and policies to support their mental health, which ultimately contributes to the overall success of the TVET system. Other than that, by ensuring thorough organizational readiness, civil servants may experience improved job satisfaction and reduced stress due to clearer processes, better resource optimization, and minimized redundancy (Hussein et. al., 2019; Hussein et. al., 2020).

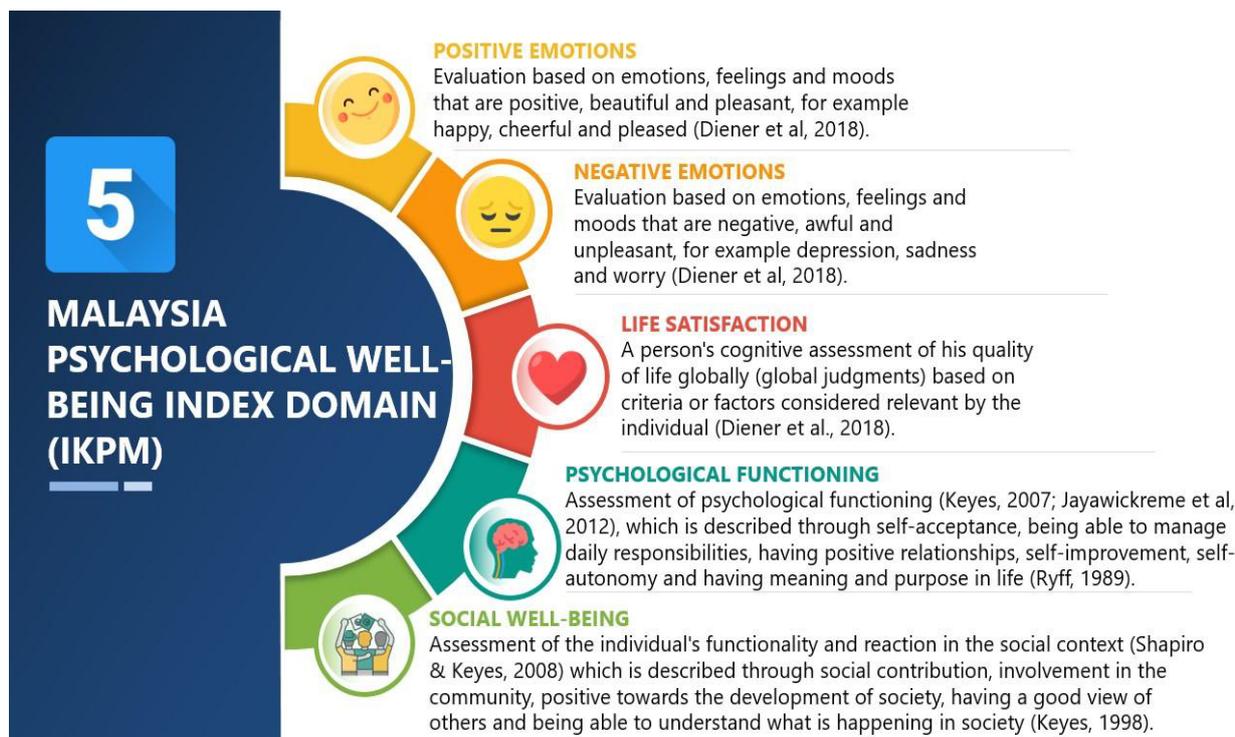


Fig. 1 Malaysia psychological well-being index domain (IKPM)

1.3 TVET and Well-Being

The integration of Technical and Vocational Education and Training (TVET) with well-being initiatives is crucial for fostering both economic growth and social inclusion (Ali Asadullah, 2019). Research indicates that national expenditure on TVET can drive economic growth by enhancing key social inclusion dimensions like employment and earnings and reducing multidimensional poverty. To achieve these outcomes, it is essential for policymakers to identify effective mechanisms for maximizing the economic impact of education spending. Ruita (2023) also recommends enhancing students' awareness and use of guidance and counseling services within TVET institutions. Additionally, equipping educators with psychosocial support skills is essential for addressing students' psychosocial challenges. Furthermore, there is a growing recognition of the importance of incorporating well-being into TVET programs. Educational institutions are increasingly assessing TVET curricula to ensure they align with the well-being needs of all stakeholders (Abba, 2024). This includes involving students, educators, and industry stakeholders in the curriculum assessment process, as well as regularly evaluating well-being metrics for all TVET stakeholders. Reitz (2018) mentioned that positive outcomes of TVET, such as increased self-confidence and social standing, highlight the importance of a well-being-focused approach. The development of a vocational well-being taxonomy is suggested as a framework for setting objectives and evaluating learning outcomes that contribute to the overall well-being of workers, thereby supporting the sustainable growth of TVET (Lambin et al., 2021). Thus, evaluating well-being among TVET stakeholders is essential for ensuring the sustainable growth of TVET, as it directly influences the effectiveness of education, the success of graduates, and the long-term socio-economic impact of vocational training programs.

2. Methodology

2.1 Research Design and Participant

The design of this study is a descriptive survey conducted to obtain the index value of psychological well-being among KKDW civil servants. Data were obtained from respondents through the IKPM online questionnaire, which was disseminated via email to KKDW civil servants. Respondents were asked to evaluate their psychological well-being across five domains: positive emotions, negative emotions, life satisfaction, psychological functioning, and social well-being. Ethical concerns were carefully considered throughout the data collection process. Participation was voluntary, and informed consent was obtained from all respondents before they answered the survey. Confidentiality and anonymity were maintained, ensuring that individual responses could not be traced back to any specific participant. Additionally, the study adhered to ethical guidelines to protect the privacy and rights of the respondents. The study employed a simple random sampling method to select participants from a population

of 29,615 civil servants within the ministry. A total of 3,062 civil servants participated in the research. According to the Krejcie and Morgan Table (1970), the minimum sample size required for a population of this size is 384. Therefore, the sample size for this study significantly exceeded the minimum requirement, enhancing the reliability and generalizability of the findings. This robust sample size provides a comprehensive representation of the population, ensuring that the results are both valid and statistically significant.

The questionnaire contained 36 items, divided into Sections A, B, C, D, and E. Sections A: Positive Emotions and Section B: Negative Emotions had 10 questions each reflecting feelings over the past 4 weeks, using a Likert scale (0 never and 10 very often). Sections C and D had 5 questions each, while Section E had 6 questions reflecting respondents' experiences on a Likert scale (0 strongly disagree and 10 strongly agree). Salleh, Sulaiman & Gloeckner (2023) suggest that Cronbach's alpha is the best method for assessing internal consistency and reliability, highlighting the importance of validity and reliability tests for ensuring evidence, confidence, consistency, and accuracy in research. Thus, for this study, the Cronbach's alpha is being used to validate, and the value is greater than 0.7, the IKPM survey questions are valid and reliable for assessing civil servants' psychological well-being. This high level of internal consistency supports the use of these questions in further research and interventions aimed at enhancing the well-being of civil servants in Malaysia.

Table 1 *Confirmatory factor analysis results*

Section	Domain	Numbers of Questions	Cronbach Alpha (>0.7)	CR (>0.6)	AVE (>0.5)
A	Positive Emotions	10	.98	0.98	0.81
B	Negative Emotions	10	.97	0.97	0.79
C	Life Satisfaction	5	.89	0.92	0.70
D	Psychological Functioning	5	.93	0.92	0.67
E	Social Well-Being	6	.85	0.85	0.53

2.2 Formula

The calculation of the Malaysian Psychological Well-being Index (IKPM) score uses a maximum score of 10 and a minimum score of 0. The calculation formula for the Malaysian Psychological Well-being Index (IKPM) is as follows:

$$\text{Indicator Score} = \frac{M1 - M2}{R} \times 10$$

$$\text{Domain Score} = \sum \frac{\text{Indicator Score}}{N \text{ Indicator}}$$

$$\text{Index Score} = \sum \frac{\text{Domain Score}}{N \text{ Domain}}$$

Indicator

\sum = Sum

M1 = Mean Score

M2 = Minimum Scale

R = Range (Maximum Scale – Minimum Scale)

N = Number

The grading for each index score obtained will be interpreted according to the established interpretation. Table 2 explains the interpretation for the scores obtained.

Table 2 *Method of interpretation of well-being levels*

Score (1-10)	Well-Being Levels
8.00 – 10.00	High
5.00 – 7.99	Moderate
0 – 4.99	Low

3. Result

The psychological well-being of civil servants was measured across five domains: Positive Emotion (PE), Negative Emotion (NE), Life Satisfaction (LS), Functions of Psychology (FP), and Social Welfare (SW). The index values for each domain are as follows:

- **Positive Emotion (PE): 7.86** indicates that civil servants generally experience a moderate level of positive emotions. This suggests a relatively optimistic outlook and frequent feelings of joy, happiness, and contentment among the respondents.
- **Negative Emotion (NE): 5.05** reflects a moderate level of negative emotions. While not excessively high, this score indicates that respondents do experience negative emotions such as stress, anxiety, and sadness to a noticeable degree, though it is balanced by their higher positive emotions.
- **Life Satisfaction (LS): 6.98** shows that civil servants have a moderate level perception of their overall life circumstances. This score suggests that, on average, the respondents are reasonably satisfied with their lives, encompassing aspects such as personal achievements, relationships, and overall life quality.
- **Functions of Psychology (FP): 7.17** indicates a moderate level of psychological functioning. This includes cognitive processes, emotional regulation, and overall mental health. Civil servants are likely to have effective coping strategies, problem-solving skills, and emotional resilience.
- **Social Welfare (SW): 8.18** reflects a high level of social well-being among the respondents. This suggests that civil servants have healthy and supportive social relationships, a sense of community, and feel socially connected and valued.

Table 3 Domain scores of psychological well-being among civil servants

No	Domain	Score	Well-Being Level
1.	Positive Emotion (PE)	7.86	Moderate
2.	Negative Emotion (NE)	5.05	Moderate
3.	Life Satisfaction (LS)	6.98	Moderate
4.	Functions of Psychology (FP)	7.17	Moderate
5.	Social Welfare (SW)	8.18	High

Composite Calculation

$$\begin{aligned}
 \text{Composite Index} &= \frac{(\text{PE Score} + (10 - \text{NE Score}) + \text{LS Score} + \text{FP Score} + \text{SW Score})}{\text{Numbers of Domain}} \\
 &= \frac{(7.86 + (10 - 5.05) + 6.98 + 7.17 + 8.18)}{5} \\
 &= \mathbf{7.03}
 \end{aligned}$$

These findings indicate that the psychological well-being index of KKDW public servants is at a moderate level with a composite score of 7.03. The highest domain score is social well-being at 8.18. This is followed by a score of 7.86 for the positive emotion domain, a score of 7.17 for the psychological functioning domain, and a score of 6.98 for the life satisfaction domain. Meanwhile, the negative emotion domain score is the lowest compared to the other domains at 5.05 (4.95). Overall, the psychological well-being index indicates that civil servants in KKDW exhibit a moderate to high level of well-being across most domains. The high scores in Positive Emotion and Social Welfare domains are particularly notable, suggesting a generally positive and well-connected social environment. However, the moderate score in Negative Emotion suggests areas where psychological support or interventions could help mitigate negative feelings. The scores in Life Satisfaction and Functions of Psychology are also relatively high, indicating good overall mental health and life satisfaction among the respondents. These findings can inform targeted interventions to further enhance the well-being of civil servants, focusing on reducing negative emotions and maintaining or improving the other well-being domains.

3.1 Psychological Well-Being Index Score by Gender

Based on gender, the index scores show that males have higher overall index scores compared to females. There is no significant difference between the overall composite index scores of males and females, with each obtaining

a composite index of 7.04 and 7.03, respectively. The study found that males scored higher in psychological functioning (7.43) and social well-being (8.31). Meanwhile, females scored higher in positive emotions (7.87) and life satisfaction (7.04) compared to males refer Fig 2. below. The findings suggest minor differences in psychological well-being between male and female civil servants. Females report fewer negative emotions and slightly higher life satisfaction, while males report higher social well-being and psychological functioning. Overall, the composite scores indicate that the general level of psychological well-being is nearly the same for both genders. These insights can help tailor interventions to address specific needs and enhance the well-being of both male and female civil servants.

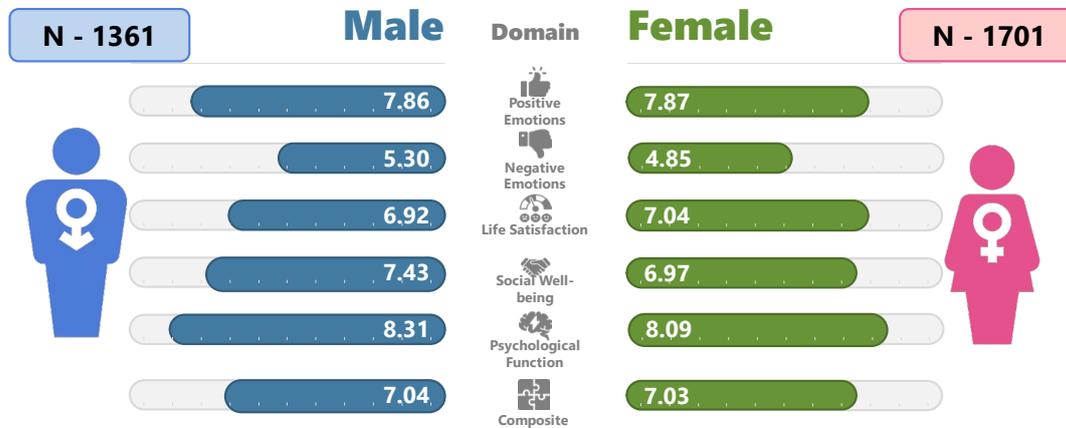


Fig. 2 IKPM scores by gender

3.2 Psychological Well-Being Index Score by Age

The scores range for positive emotions domain is from 7.82 to 8.02, with the highest score observed in the >51 age group (8.02) and the lowest in the 30-40 age group (7.82). This indicates that older civil servants tend to experience higher levels of positive emotions. Meanwhile, in negative emotion domain shows the scores decrease with age, from 5.31 in the 30-40 age group to 4.08 in the >51 age group. This trend suggests that older civil servants experience fewer negative emotions. These results indicate that the older a public servant is, the higher their psychological well-being. Public servants over 51 years old dominate all domains, showing high scores in positive emotions (8.02), life satisfaction (7.44), social well-being (7.52), and psychological functioning (8.44).

The composite psychological well-being scores show a clear upward trend with age, from 6.90 in the 30-40 age group to 7.47 in the >51 age group. The <30 age group has a composite score of 6.96. This overall trend indicates that psychological well-being tends to improve with age among civil servants. The findings from the table shows in Table 4 suggest that psychological well-being generally improves with age among civil servants. Older civil servants report higher levels of positive emotions, life satisfaction, social well-being, and psychological functioning, and lower levels of negative emotions. These insights can inform targeted interventions to support the well-being of younger civil servants and enhance the overall psychological health of the workforce.

Table 4 IKPM scores by age

Age	< 30 years	30 - 40 years	41 - 50 years	>51 years
Domain				
Positive Emotions	7.86	7.82	7.92	8.02
Negative Emotions	5.24	5.31	4.72	4.08
Life Satisfaction	6.89	6.87	7.14	7.44
Social Well-Being	7.19	7.02	7.39	7.52
Psychological Function	8.07	8.10	8.36	8.44
Composite	6.96	6.90	7.22	7.47
N	525	1576	672	289

3.3 Psychological Well-Being Index Score by Length of Service

The period of service over 41 years has a high composite score of 8.20, followed by the period of service group of 21 to 30 years and 31-40 years, each with the same score, which is a composite index of 7.43, then the period of service group of less than 1 year with a composite score of 7.16, followed by the period of service group of 11 to 20 years (7.02) and then the period of service group of 2 to 10 years (6.89). Including participants with less than one year of service in the study is crucial because it allows for a comprehensive understanding of the experiences and perspectives of new employees, which can differ significantly from those of employees with more than ten years of service.

Findings as shown in Table 5 that the service group of 2 to 10 years has the lowest scores in all measured domains, namely positive emotions (7.75), life satisfaction (5.06), social well-being (7), and psychological functioning (7.10). However, the period of service group of 11-20 years has the highest score for negative emotions, which is 5.31. The period of service over 41 years has the highest scores for the life satisfaction domain, which is 7.70, social well-being, which is 8.53, and psychological functioning, which is 8.61, and has the lowest score for the negative emotion domain, which is 1.73.

Table 5 IKPM scores by lengths of service

Years of Service \ Domain	< 2	2 - 10	11 - 20	21 - 30	31 - 40	>40
Positive Emotions	8.06	7.75	7.91	7.92	8.01	7.83
Negative Emotions	5.11	5.06	5.31	3.90	4.48	1.73
Life Satisfaction	7.10	6.75	7.10	7.24	7.56	7.70
Social Well-Being	7.51	7.00	7.20	7.53	7.52	8.53
Psychological Function	8.23	7.10	8.26	8.40	8.6	8.61
Composite	7.16	6.89	7.02	7.43	7.43	8.20
N	174	991	1484	300	91	3

3.4 Psychological Well-Being Index Score by Service Group

The group of public servants is divided into four (4) categories: top management, management & professional, support I, and support II. The study found that the management and professional group has the highest composite score of 7.25, followed by support II (7.20), support I (6.98), and top management (5.63). Refer Table 6 for details.

Table 6 IKPM score by service group

Years of Service \ Domain	Top Management (Jusa C & Above)	Management & Professional	Support I (Grade 17-40)	Support II (Grade 1-16)
Positive Emotions	5.75	8.02	7.83	7.98
Negative Emotions	5.85	4.88	5.11	4.91
Life Satisfaction	6.10	7.21	6.93	7.20
Social Well-Being	5.80	7.42	7.13	7.30
Psychological Function	6.33	8.47	8.13	8.28
Composite	5.63	7.25	6.98	7.20
N	2	409	2396	255

Comparison of scores between domains shows that the Management and Professional group dominates all domains, showing high scores in Psychological Functioning (8.47), positive emotions (8.02), life satisfaction (7.21), and social well-being (7.42). However, the Management and Professional group reported the lowest score for negative emotions, with a score of 4.88. This indicates that individuals in this group experience fewer negative emotions compared to other occupational groups within the civil servants. The Top Management group has the lowest index scores across all domains: positive emotions (5.75), psychological functioning (6.33), social well-being (5.80), and life satisfaction (6.10). Interestingly, the only exception is the negative emotion domain, where this group scores the highest at 5.85. These findings suggest that individuals in top management positions experience higher stress levels, which may negatively impact their overall psychological well-being. The overall score is as shown in Fig.5.

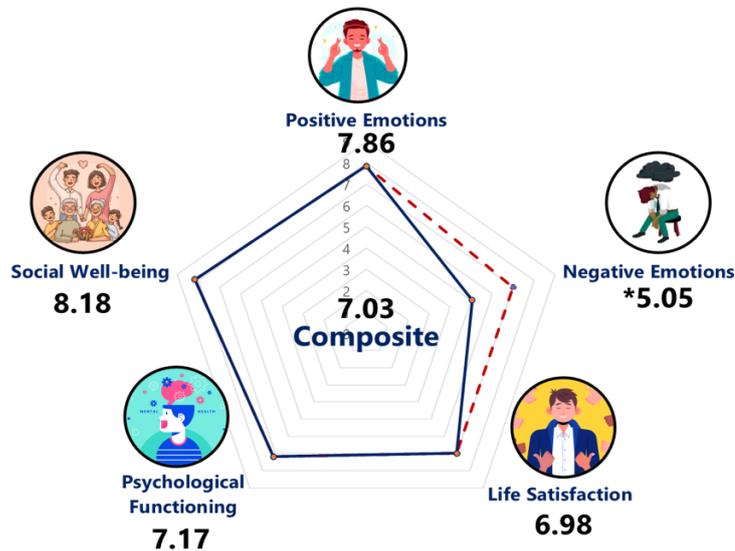


Fig. 5 IKPM overall index score for civil servants

4. Discussion

Overall, this study shows that the psychological well-being of KKDW citizens is at a moderate level and requires improvement efforts. Additionally, through the findings shown, differences between existing demographic factors can serve as indicators for implementing interventions and policies aimed at enhancing psychological well-being elements among civil servants.

Generally, KKDW citizens have shown high social well-being, indicating social contribution, community engagement, positivity towards societal development, a good outlook on society, and always being aware and understanding of what is happening in society. This is in line with the ministry's vision and mission to lead rural progress and comprehensively and effectively improve the well-being of rural communities.

Psychological functionality is at a moderate level, showing that they have self-autonomy and understand the meaning and purpose of life well if given continuous internal reinforcement based on positive values that a civil servant should have such as honesty, trustworthiness, responsibility, etiquette, and so on. Meanwhile, other aspects such as positive emotions and life satisfaction show that KKDW citizens are still at a moderate level and can be worked on to achieve high well-being. Additionally, improvement efforts are also needed to reduce the level of negative emotions.

Based on the results obtained, the implementation of the study using IKPM can positively impact civil servants as a benchmark indicator for the country's prosperity level in a global context and as an indicator of best practices in developed countries. Implementing the IKPM can help organizations within the public sector create more supportive and productive workplaces. By regularly monitoring and addressing the psychological well-being of civil servants, government agencies can enhance employee morale, reduce turnover rates, and ultimately improve the quality of public service delivery. This introduction to the IKPM underscores the importance of mental health in the public sector and sets the stage for a deeper exploration of its components, methodology, and applications.

Furthermore, integrating Technical and Vocational Education and Training (TVET) programs into these strategies could be pivotal, as enhancing skills and competencies through TVET can complement efforts to improve psychological well-being and overall job performance. By enhancing skills and competencies through TVET programs, civil servants can experience improved job satisfaction and psychological well-being. Tailoring TVET initiatives to address the unique needs of various demographic groups can help bolster the overall well-

being of civil servants, leading to a more effective and contented workforce. Moreover, it also helps to identify significant target groups to implement appropriate policies and subsequently execute comprehensive and precise interventions for the target groups based on the data obtained. For example, interventions could include implementing stress management workshops, offering mental health counselling, and promoting work-life balance programs tailored to civil servants' needs. These targeted initiatives can effectively address the specific challenges faced by different demographic groups, ultimately enhancing the overall psychological well-being and productivity of civil servants.

5. Conclusion

The study results show that KKDW workforce have a moderate level of psychological well-being, scoring 7.03 out of 10. This level needs improvement if KKDW aims to produce competitive, quality, and well-rounded individuals. The differences between existing demographic groups, as shown by the findings, can serve as indicators for implementing targeted interventions and policies aimed at enhancing psychological well-being among civil servants. The IKPM serves as a crucial indicator, highlighting the need for efforts to improve the psychological well-being of workforce in KKDW through both short-term and long-term initiatives. By providing a quantifiable assessment of psychological well-being, the IKPM enables organizations to identify areas of strength and areas needing improvement. This insight can guide the development of targeted interventions and policies that address specific needs, ultimately leading to enhanced employee morale, reduced turnover, and improved productivity.

For readers, particularly policymakers, managers, and human resources professionals, the IKPM offers a valuable tool for benchmarking well-being standards and implementing best practices. Additionally, understanding the index's results can help in crafting strategies that align with global standards, fostering a more supportive and effective work environment, and contributing to the overall health and performance of the workforce. To achieve this goal, various new initiatives and policies need to be established to safeguard the well-being of TVET stakeholders throughout their service. Thus, policymakers should prioritize mental health initiatives, allocate resources for regular well-being assessments, via IKPM, and develop TVET stakeholder profiles to identify individuals or groups requiring precise psychological well-being. TVET programs and strategies can be enhanced by integrating with the well-being taxonomy to ensure sustainable workforce development.

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Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Authors Contribution

*The authors confirm contribution to the paper as follows: **Introduction:** Norazizah Azizan, Anis Fathirah Omar; **Literature Review:** Norazizah Azizan, Anis Fathirah Omar, Nur Diana Mehat, Saidatul Rahah Hamidi; **Methodology:** Muhamad Ashman Muhamad Yusof, Nur Diana Mehat; **Summary:** Muhamad Ashman Muhamad Yusof, Saidatul Rahah Hamidi. All authors reviewed the results and approved the final version of the manuscript.*

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