COGNITIVE SCIENCES AND HUMAN DEVELOPMENT

Work-life Integration and Mental Health Issues among Higher Education Staff

Siti Aisyah Panatik, Errna Nadhirah Kamalulil*, Junaidah Yusof & Khairul Azmi Ishak
School of Human Resource Development and Psychology, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, 81310, Johor Bahru, Johor, Malaysia.

ABSTRACT

The multiple roles and responsibilities assigned to staff members in public tertiary education have led to an imbalance of work and life interface, which eventually affected their mental health. Therefore, this study aims to examine the influence of work-life integration on mental health among staff who are working at a higher education institution in Johore, Malaysia. This study utilized a quantitative approach, in which a set of questionnaires was distributed through an online survey. A total of 137 respondents participated in this study. The data were analyzed using descriptive and inferential statistics via SPSS Version 26 and SmartPLS 3.0. The findings indicated that the level of work-to-life integration and life-to-work integration is ranked between moderate to high, and moderate to low, respectively. The level of mental health is indicated at a moderate level. This study also found that work-life integration has a significantly positive influence on mental health.

Keywords: work-life integration, mental health, higher education staff, SmartPLS

1   INTRODUCTION

Malaysia requires a highly resourceful enthusiastic workforce in the process of globalization and rapid growth of education. The academic staff is the key player in acquiring a more comprehensive education plan in compliance with the 11ᵗʰ Malaysia Plan (Prime Minister Department, 2015). The role of an academician is varied, such as teaching and supervising students, conducting research work, managing academic matters, and involving in community work (Kosnin & Jantan, 2010). These multiple roles and responsibilities require the academician to meet the job demand due to the changes in the tertiary education system, which leads to different mental health issues. In Malaysia, there are three universities – one is categorized as a research university, the second is categorized as a comprehensive university, and the final category is a technical university. These categories determine the focus and direction of the universities. Universiti Teknologi Malaysia (UTM) falls under the Research University category.

The source of occupational stress for academicians in research universities is found to be centered on career growth, which includes the university requirements for professional advancement and obtaining the required publication for promotion purposes (Hassim & Arma, 2016). These requirements lead to more job demands that need to be fulfilled, which eventually causes an imbalance of work and non-work interface. Accordingly, mental health is impaired due to the rise of work-life integration issues, and high emotional exhaustion is the negative emotional state experienced by Malaysian employees (Khairun Nisa & Dewi, 2016; Khoo et al., 2017; Pavot & Diener, 2009). There is a survey discovered that Malaysia's average weekly working hours are 15 hours and higher than Hong Kong, Australia, and a neighboring country, Singapore, and 53% of Malaysians still sleep fewer than seven hours per night (AIA Vitality, 2019). Research findings among the UTM staff in research universities from Hassim and Arma (2016) revealed that the prevalence of stress was 22.1%. Depression, anxiety, and stress were also found to be experienced by UTM staff at low and moderate levels (Mukosolu et al., 2015; Suhaimi & Nasrudin, 2018). These issues lead to poor employees' engagement in the job assigned, increase the risk of getting mental health problems, and eventually, the likelihood of employees' turnover intentions would be increased (Kabiri et al., 2018; Suifan et al., 2016).

Work-life integration is one of the main antecedents of mental health among university staff. As affirmed by Wepfer et al. (2018), work and non-work domain integration given the personal identities and boundary control aid in minimizing depletion of resources and preserving more excellent rates of job efficiency and outcomes in the boundary management plan. This boundary control attempts to introduce a balanced life within and beyond the workplace, such as flexible working hours. In the context of Malaysia, the lack of literature on this issue urges the researchers to address the research gap by thoroughly examining the influence of work-life integration on mental health, specifically among higher education staff who are currently employed in a research university in Malaysia.

1.1 Boundary Theory

The difference in life interface between working life and personal life initiate the development of boundary theory concerning boundary management. Ashforth et al. (2000) first introduced the boundary theory that explains the two different domains of work and non-work life in the aspects of boundaries that touch on different life interfaces. To ensure the balance between the demands of these two domains, employees strive to produce, sustain, and evolve across the boundary (Clark, 2001). Based on Bulger et al. (2007), segmentation and integration are the two strategies that indicate employees' ability to balance their boundaries between work and non-work. Inflexibility and unpermeability of boundaries to restrict the integration of an individual's thinking, feeling, behaviors, objects, and activities with the other domain is characterized as a segmentation strategy. As an illustration, individuals who allow segmentation strategy would never think about work-related matters during their time off and never get to work late or leave early to manage non-work matters. On the contrary, an integration strategy is associated with flexibility and permeability of boundaries that allow individuals to integrate their thinking, feeling, behaviors, objects, and activities with the other domain. Individuals who practice integration strategy would often work after hours or on weekends and have personal items at their workplace.

In today's rapid changing of working culture to meet the job demands, it is crucial to examine the proper strategy practiced by various organizations, particularly the tertiary education system. As being executed by human resource management, work-life integration has been emphasized to seek not only attention from professionals and scholars, but also government attention to figure out new methods that can help in enhancing university staff's productivity by providing alternative ways of promoting a better work-life preference. Further empirical research on potential constructs related to work-life integration needs to be examined to contribute new insights into work-life domains. Hence, work-life integration that focuses on work-to-life integration and life-to-work integration were employed in this study to examine the impact of the integration of work and non-work domains on mental health among UTM staff.

1.2 Work-life Integration

In the early work-life initiatives, many organizations emphasize dependent care and the Employees Assistance Program (EAP), but when there is a transition in multiple aspects of working life, the work-life initiatives have changed that involve almost every aspect of working life (Harrington & Ladge, 2009). Prior to this, the study of work-life integration has become prolific, especially in Western culture, and acts as an important indicator of employees' overall stability in work and non-work life. Integration and segmentation are the constructs that affect how employees balance themselves between work and family roles as being able to adapt to the transition or incompetent to achieve a balanced life (Wepfer et al., 2018). On the contrary, work-life integration is often related to the quality of working life and wider life quality (Greenhaus et al., 2003; Guest, 2002; Zheng et al., 2015). It is because work-life integration is associated with the management in providing satisfactory consideration between work and non-work that is usually connected to job satisfaction, engagement, and performance (Kalpna & Malhotra, 2019).

1.3   Mental Health

Mental health is regarded as the presence of emotional symptoms that result from hormonal differences in psychological strain reactions (Lobel & Dunkel-schetter, 1990). There are three classifications of negative affect, including depression, anxiety, and stress (Lovibond & Lovibond, 1995). The conceptualization of depression is the psychological disorder that results in physical symptoms such as self-criticism, frustration, and sadness (Downing-Orr, 2013); anxiety is the emotional status that can operate as a positive or negative stimulus that can function for survival from potential threats (Swift et al., 2014) whereas stress is an emotion that is triggered through the presence of imbalance between demands and resources (Lal & Singh, 2015). Based on the relevance of the study, depression, anxiety, and stress are the three constructs used to assess mental health status.

1.4   Hypothesis Development and Conceptual Framework

Work-life integration is the work-related factor included in this study because the integration of work and non-work domains has negatively influenced mental health (Balkan, 2014). Boundaries in this modern era have been increasingly blurring because non-work time, such as during weekends and on vacation, is occupied with work matters to respond to phone calls, texts, and emails (Lahti, 2017). The increasing usage of portable digital technologies allows employees across various organizations to facilitate working and operate their businesses regardless of time and place. Similar case with the academic staff, which requires engaging with various online learning during this global pandemic for better learning outcomes. The significant problems of conducting online learning in the universities include technical issues with the utilized medium, academic staff's lack of technical skills, and implementation of inappropriate teaching styles (Coman et al., 2020). As a result, greater job demands need to be well-performed which will be regarded as the work stressors if the imbalance of work and non-work domains arose. As supported by Kalpna and Malhotra (2019), the work stressors experienced in the organization are found to influence negatively work-life balance. Fernandez-crehuet et al. (2015) reported that work-life balance is the crucial factor that has led to positive outcomes in the workplace and in managing household responsibilities. This has been an issue in managing work-life balance because of the high levels of integration of work and non-work domains (Mellner et al., 2015).

High boundary control is found to be an influential factor in determining employees' capabilities for self-regulation to maintain a positive state of emotions (Mellner et al., 2015). This could be done if the institution fosters segmentation preferences between work and non-work domains in dealing with their workload. The academician's work is not limited solely to teaching but also includes marking papers, project supervision, research, and publication, as well as community service participation (Bartlett, 2020). In addition, as suggested by Razak et al. (2014), clear communication between leaders and followers is vital to foster work-life balance and deal with all sorts of difficulties that could lead to negative emotions. Recommendations on the coping strategies from Sunday and Rosemary (2017) in managing workload and associated pressures among the UTM staff are appropriate time management, prioritizing the critical task, properly allocated appointments, evaluating responsibilities adequately, and constantly taking a short break.

On that account, management of work-life boundaries is crucial because it leads to a positive outcome such as low perception of work-home conflict (Kossek & Lautsch, 2012).

A research study found that low levels of work-life balance could alter emotional state. According to Suhaimi and Nasrudin (2018), 23% and 51% of young academicians suffer from depression and anxiety. Besides, in a study among the academic staff, 21.7% of them were found to suffer from stress due to the high job demand (Mukosolu et al., 2015). However, the review on the association between work-life integration and mental health among university staff is limited, especially in Malaysia. For this reason, a greater emphasis on the integration of work and non-work domains and their impact on mental health must be placed. Therefore, this study will examine the influence of work-life integration on university staff's mental health to improve their mental health status.

Based on these justifications, the research hypotheses are put forward, followed by the conceptual framework (Figure 1):

H1a.   Work-to-life integration has a positive influence on depression among UTM staff.
H1b.   Work-to-life integration has a positive influence on anxiety among UTM staff.
H1c.   Work-to-life integration has a positive influence on stress among UTM staff.
H2a.   Life-to-work integration has a positive influence on depression among UTM staff.
H2b.   Life-to-work integration has a positive influence on anxiety among UTM staff.
H2c.   Life-to-work integration has a positive influence on stress among UTM staff.
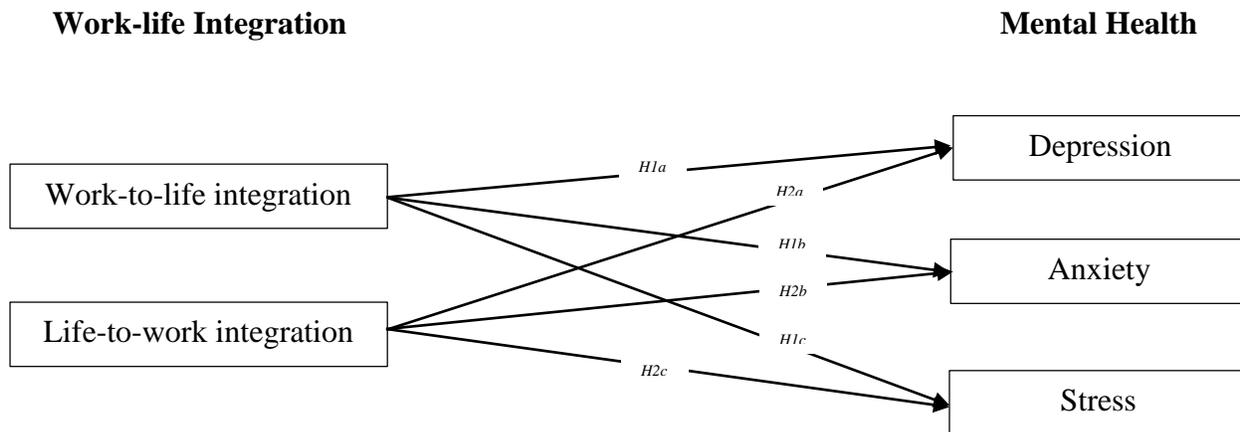
Figure 1. Conceptual framework.

2   PURPOSE OF STUDY

Theoretically, this study will broaden the literature on the influence of work-life integration on mental health among university staff, while in terms of practicality, all parties can use these research findings to formulate effective initiatives in improving university staff's mental health status by considering their level of integration between work and non-work domain. Therefore, the

researchers are motivated to carry out the study based on research gaps in the context of Malaysia. Thus, this study aimed to examine the influence of work-life integration on mental health among UTM staff in the research universities.

3   METHODOLOGY

3.1   Research Design, Population and Sample

The quantitative data using a cross-sectional research design was utilized as the research design for the current study. The data was collected via an online survey using a convenient sampling technique in a work-based population of UTM staff currently working at Universiti Teknologi Malaysia (UTM). The demographics of respondents are provided in Table 1. A total of 137 respondents completed the survey, consisting of 56 males and 81 females, with the highest age range between 31 to 40. Majority of the respondents were among the Malay (n = 134; 97.8%) while Chinese and Indian respondents added up to 1.5% (n = 2) and 0.7% (n = 1) respectively. More than three-quarters of the respondents were married (n = 115; 83.9%), and more than a third of the respondents (n = 52; 38%) were educated to a Ph.D. level. Eighty-eight (64.2%) respondents have been working at UTM for more than ten years. In terms of the job category, over half of the total respondents were among the support staff (n = 71; 51.8%), followed by 42.3% (n = 58) academic staff (n = 8). Approximately one-third (n = 45; 32.8%) of all respondents were classified as having a total income of more than RM7,000. The highest range of economic dependent was three to five (n = 72; 52.6%), followed by zero to two (n = 45; 32.8%) and six to eight (n = 20; 14.6%).

Table 1. Demographics of respondents (n = 137).

Demographic	*n*	%
Gender		
Male	56	40.9
Female	81	59.1
Age		
20 – 30	15	10.9
31 – 40	55	40.1
41 – 50	37	27.0
50 and above	30	21.9
Race		
Malay	134	97.8
Chinese	2	1.5
Indian	1	0.7
Marital Status		
Single	16	11.7
Married	115	83.9
Divorce	5	3.6
Widower/Widow	1	0.7
Education Level		
SPM/STPM	30	21.9

Sijil Kemahiran Malaysia (SKM)	3	2.2
Diploma	24	17.5
Bachelor's Degree	16	11.7
Master's Degree	12	8.8
PhD	52	38.0
Work Tenure (years)		
3 and below	22	16.1
3 – 6	7	5.1
7 – 10	20	14.6
10 and above	88	64.2
Job Category		
Academic Staff	58	42.3
Management, Administrative, and Executive Staff (PPT)	8	5.8
Support Staff	71	51.8
Total Income (RM)		
Below 3,000	31	22.6
3,000 – 5,000	40	29.2
5,000 – 7,000	21	15.3
7,000 and above	45	32.8
Economic dependents		
0 – 2	45	32.8
3 – 5	72	52.6
6 - 8	20	14.6

3.2   Measures

Survey questionnaires are quantitative research and self-report techniques that were used because emotions cannot be directly evaluated instead, respondents must self-report their feelings, which is considered a subjective phenomenon (Zentner & Eerola, 2010). Therefore, Depression, Anxiety and Stress Scale (DASS) was adopted in examining the mental health of UTM staff as the outcome variable for work-life integration that was measured by using the Work-Life Boundary Enactment Scale.

Wepfer et al. (2018) developed a theoretically based self-report inventory, the Work-Life Boundary Enactment Scale, designed to measure the dimensions of work-to-life integration and life-to-work integration. The original instrument consisted of two polar statements that reflect both directions of segmentation and integration. However, this study adapted the integration items only to assess the boundaries between work and non-work interfaces. The instrument consists of 16 items with eight items for each dimension, evaluated on a five-point Likert scale, ranging from "strongly disagree" to "strongly agree". The adaptation of this instrument in Quebec, a Canadian province, showed a high Cronbach's alpha between 0.79 to 0.93 (Leduc et al., 2016).

Mental health. DASS, facets of mental health developed by (Lovibond and Lovibond (1995). This instrument assesses the emotional state of respondents through three dimensions that include

depression, anxiety, and stress. Each dimension consists of seven items and has five levels of emotional states, including "normal, mild, moderate, severe, and extremely severe". Respondents rated each of the 21 items on a 0 (never) to 3 (always). The scores for the total DASS-21 and each dimension were summed and multiplied by factor 2. The sum score of overall DASS-21 is between 0 and 126, and each of the dimensions ranged from 0 to 42. The severity ratings for all dimensions of DASS-21 are adapted from Lovibond and Lovibond (1995). Several studies reported high internal consistency with a Cronbach's alpha coefficient from 0.79 to 0.86 (Harris et al., 2006; Tran et al., 2018).

3.3 Data Analysis

After the data collection through Google Forms, an online survey tool, the data was captured on a Microsoft Excel spreadsheet. The Excel spreadsheet then was imported into the SPSS Version 23.0 for descriptive analysis. The descriptive analyses include frequency distribution and percentage for respondents' demographic profiles, and mean, and standard deviation to determine the level of work-life integration and mental health. Meanwhile, the inferential analysis of the impact of work-life integration consisting of work-to-life integration and life-to-work integration on mental health inclusive depression, anxiety, and stress among UTM staff was measured using SmartPLS version 3.3.3 as this statistical software can assess multiple relationships at once (Hair et al., 2017).

4 RESEARCH FINDINGS

4.1 Descriptive Analysis

The prevalence of work-life integration and mental health among UTM staff is presented in Appendix A. Based on the categories set out in the corresponding instruments, it was found that in the evaluation of work-to-life integration, 63.5% of UTM staff (n = 87) had moderate work-to-life integration followed by high (n = 46; 33.6%) and low (n = 4; 2.9%). Likewise, the highest prevalence of life-to-work integration was at moderate level (n = 95; 69.3%) while low level of 29.9% (n = 41) was found and only one (0.7%) UTM staff reported high level of life-to-work integration.

For mental health scores, severity ratings suggested by Lovibond and Lovibond (1995) were used to classify the emotional states of UTM staff. Out of 137 UTM staff, 81 (59.1%) of them are categorized as having normal depression, 21 (15.3%) of them reported mild stress, moderate (n = 26; 19.0%), severe (n = 3; 2.2%) and extremely severe (n = 6; 4.4%). Anxiety was absent in 62 (45.3%) UTM staff while the remaining UTM staff who mildly involved in anxiety are 14 (10.2%), moderate is 29 (21.2%), severe ais13 (9.5%) and extremely severe are 19 (13.9%). Similarly, stress absent in 100 (73.0%) UTM staff while 15 (10.9%) involved mildly, 14 (10.2%) moderately, 7 (5.1%) severely and only one (0.7%) UTM staff involved extremely severe.

The descriptive statistics of the Work-life Boundary Enactment Scale, which was employed to assess work-life integration consisted of two dimensions that consisted of work-to-life integration and life-to-work integration (Appendix B). The mean value of the scores for work-life integration

obtained from respondents ranged from 19 to 61. A high score indicates an elevated level of work-life integration and vice versa. The mean of work-to-life integration (M = 25.82) is higher compared to life-to-work integration (M = 16.18). The highest reported work-to-life integration was "I often think about work matters during my time off," followed by "I often take work home and often communicate with people from work during time off" while the lowest include "often works from home, often talk about work with people from outside of work and often work after hours or on weekends."

Besides, the preference for a life-to-work integration strategy was reported for behaving the same way as at home, often communicating with family and friends and talking a lot about non-work life while at work. Often get to work late or leave early to take care of non-work matters, often taking care of non-work matters during scheduled work hours and often take care of non-work matters while physically at the workplace were the lowest preference of life-to-work strategy.

For mental health scores, the mean value ranged from 0 to 48. A high score signifies an elevated level of emotional states of depression, anxiety, and stress. As seen in Appendix C, stress showed the highest mean of 5.71, followed by anxiety (M = 4.71) and depression (M = 4.53). The UTM staff reported the lowest mental health score for the "feeling of meaningless life" (M = 0.26), "having nothing to look forward to" (M = 0.48), and "feeling scared without any good reason" (M = 0.50). Even so, it is stated that their mental health scores are the highest owing to the "awareness of dryness of the mouth" (M = 1.07), "difficulties winding down" (M = 0.96), "feeling touchy" (M = 0.95) and "difficulties in working up the initiative to do things" (M = 0.92).

4.2   Measurement Model

In terms of construct reliability that have been verified through Cronbach's alpha and composite reliability, all values are above 0.70, showing satisfactory reliability (Hair et al., 2011), and composite reliability further confirms the construct reliability that is larger than the corresponding AVE (Table 2). The convergent validity is sufficient as all AVE values are more significant than 0.50 (Hair et al., 2011) except for life-to-work integration. Even though the AVE of this construct is less than 0.5, the composite reliability is more significant than 0.6, Fornell and Larcker (1981) claimed that the convergent validity is still sufficient. Besides, all square root of AVE of all variables is greater than their corresponding coefficient, and Fornell andLarcker'sr (1981) criterion smaller than one except for depression and anxiety.

Table 2. Construct reliability, convergent validity, and discriminant validity.

	Cronbach's Alpha	Composite Reliability	AVE	WLI	LWI	Depression	Anxiety	Stress
WLI	0.851	0.886	0.511	0.715				
LWI	0.733	0.791	0.357	-0.080	0.598			
Depression	0.864	0.897	0.556	0.335	0.390	0.746		
Anxiety	0.885	0.91	0.594	0.418	0.363	1.019	0.771	
Stress	0.899	0.92	0.622	0.423	0.371	1.029	1.027	0.789

Note: WLI = Work-to-life integration, LWI = Life-to-work integration and AVE = Average variance extracted

4.3   Structural Model

To evaluate the structural model, bootstrapping of 500 samples was carried out in SmartPLS (Hair et al., 2010). T-statistics of 1.645 with $p < 0.05$ was referred to validate the hypotheses. The full structural model path analysis is shown in Table 3. The results showed that work-to-life integration has positive significant influence on depression ($\beta = 0.369$, $t = 4.884$), anxiety ($\beta = 0.450$, $t = 6.995$) and stress ($\beta = 0.456$, $t = 6.947$). Thus, H1a, H1b, and H1c are empirically supported. Furthermore, life-to-work integration was also found to has positive significant influence on depression ($\beta = 0.421$, $t = 5.349$), anxiety ($\beta = 0.339$, $t = 4.773$) and stress ($\beta = 0.408$, $t = 5.233$). Therefore, H2a, H2,b and H2c are supported with empirical evidence.

Table 3. Results of path analysis.

Hypothesis	Relationship	Path Coefficient	T Values	P Values	Results
H1a	WLI → Depression	0.369	4.884	0.000***	Accepted
H1b	WLI → Anxiety	0.450	6.995	0.000***	Accepted
H1c	WLI → Stress	0.456	6.947	0.000***	Accepted
H2a	LWI → Depression	0.421	5.349	0.000***	Accepted
H2b	LWI → Anxiety	0.399	4.773	0.000***	Accepted
H2c	LWI → Stress	0.408	5.233	0.000***	Accepted

Note. ***$p < 0.00$, one-tailed

Table 4 indicates that the model can explain 28.8%, 33.2%, and 78.9% of the variance of depression, anxiety, and stress among UTM staff. R2 values for depression, anxiety, and stress indicate the strong influence of work-life integration on these three dimensions based on the rule of thumb by Cohen (1988). In addition, all the predictor variables are relevant to determine depression, anxiety, and stress because, according to Hair et al. (2014), the value of Q2 should be higher than 0.

Table 4. R^2 and Q^2 values for the dependent variables.

	D	A	S
R^2	0.288	0.333	0.789
Q^2	0.149	0.184	0.201

Note: WLI = Work-to-life integration and LWI = Life-to-work integration
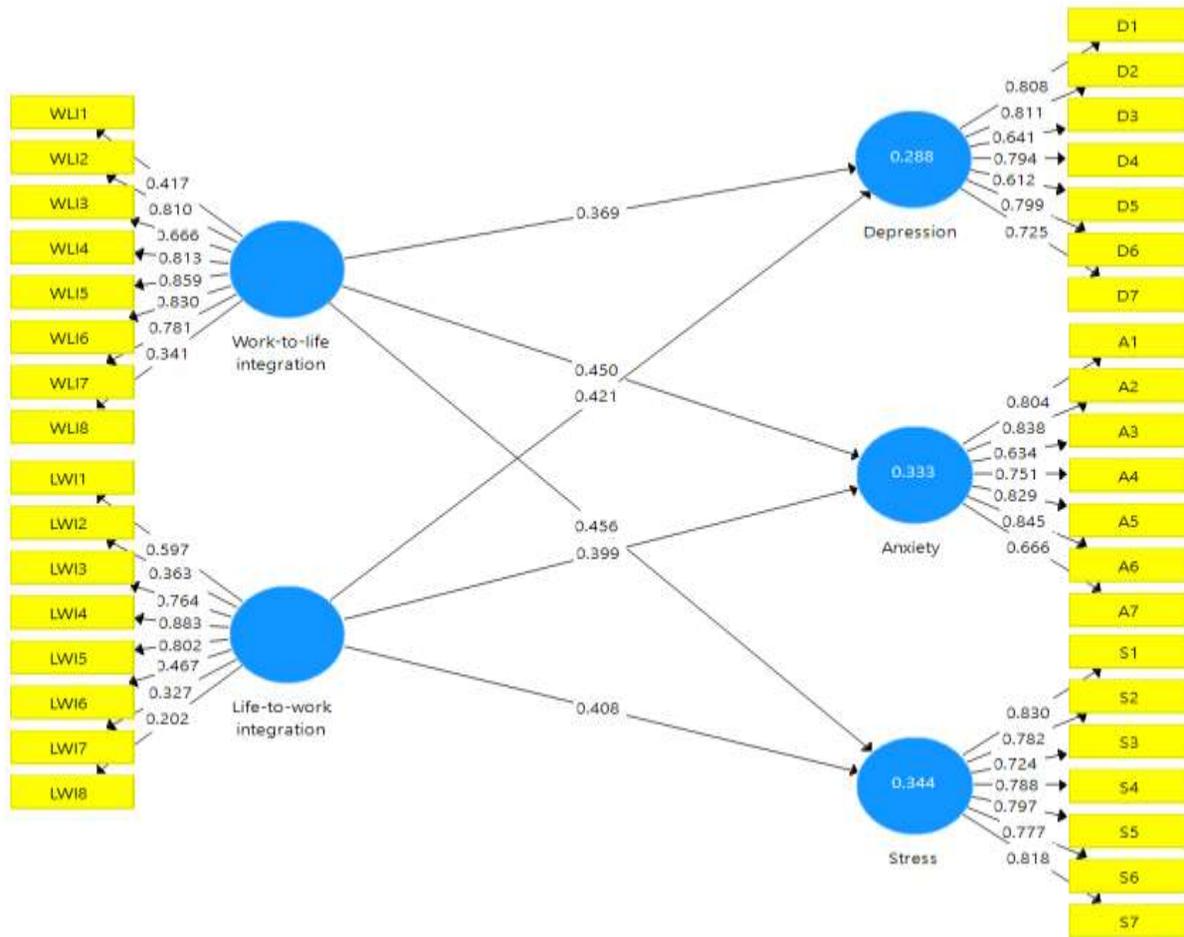
Figure 2. Research model.

5   DISCUSSION

In this study, we investigated relationships between work-life integration (WLI) and mental health among UTM staff. The findings of this study confirmed all the hypotheses. Employees with high WLI reported being more depressed, anxious, and stress. Academics who reported that they integrate work into non-work life pursuits reduced mental health. Meanwhile, academics who reported integrating non-work life into work also pursued high depression, anxiety, and stress.

The finding of this study that WLI is related to poor mental health is in line with previous research that has linked integration to mental health indicators such as depression, anxiety, and stress (Kreiner, 2006). This study extends this evidence by taking it from the UTM staff perspective and showing that those who integrate work into their non-work life will increase their level of depression, anxiety, and stress.

6   CONCLUSION

The results of our study suggest that work-to-life integration has implications for employees' well-being. From an occupational health perspective, it is crucial to understand the implications of work-life integration in the university context. Based on this knowledge, practitioners and policymakers can adjust organizational policy and culture and help academics manage their work-non-work boundaries in a way that does not impair their mental health. The present study believes that investigating the effect of work-life integration on mental health, it adds to the existing knowledge of boundary dynamics and their impact on well-being. Future research should replicate and extend these results.

6.1   Research Implications

This study brings attention to the relationship between WLI and mental health indicators such as depression, anxiety, and stress among UTM staff. The results suggest that integrating work into non-work life relates to depression, anxiety, and stress and to impaired work-life balance. While previous studies have found evidence of a relation between work-life integration and impaired mental health (Kreiner, 2006; Mellner et al., 2015), this study contributes to the existing knowledge by focusing on boundary preferences such as integration of work toward the non-work domain and integration of non-work domain on work and testing possible influence on depression, anxiety, and stress. Much research needs to be done to understand the conditions that enable employees to craft boundaries between work and non-work life that are in line with their preferences and needs, which do not impair their state of mental health.

ACKNOWLEDGEMENTS

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APPENDIX A

Prevalence of work-life integration and depression, anxiety, and stress among UTM staff (n = 137)

	Ratings	Category	*n*	%
WLI	1 – 14	Low	4	2.9
	15 – 28	Moderate	87	63.5
	29+	High	46	33.6
LWI	1 – 14	Low	41	29.9
	15 – 28	Moderate	95	69.3
	29+	High	1	0.7
Depression	0 – 9	Normal	81	59.1
	10 – 13	Mild	21	15.3
	14 – 20	Moderate	26	19.0
	21 – 27	Severe	3	2.2
	28+	Extremely severe	6	4.4
Anxiety	0 – 7	Normal	62	45.3
	8 – 9	Mild	14	10.2
	10 – 14	Moderate	29	21.2
	15 – 19	Severe	13	9.5
	20+	Extremely severe	19	13.9
Stress	0 – 14	Normal	100	73.0
	15 – 18	Mild	15	10.9
	19 – 25	Moderate	14	10.2
	26 – 33	Severe	7	5.1
	34+	Extremely severe	1	0.7

APPENDIX B

Descriptive statistics of Work-life Boundary Enactment Scale and overall work-life integration scale

Item no.	Statements	*M*	*SD*
	Work-to-life integration	25.82	6.29
1	I often work from home.	2.90	1.13
2	I often take work home.	3.42	1.20
3	I often leave my workplace late.	3.23	1.02
4	I often work after hours or on weekends.	3.17	1.22
5	I often think about work matters during my time off.	3.52	1.09
6	I often communicate with people from work during my time off.	3.33	1.09
7	I often talk about work with people from outside of work.	3.09	1.13
8	Outside of work I am the same person as I am at work.	3.18	1.08
	Life-to-work integration	16.18	4.09
9	I often take care of non-work matters while physically at my workplace.	1.88	0.91
10	I have many personal items at my workplace.	1.94	0.82
11	I often get to work late or leave early, in order to take care of non-work matters.	1.66	0.80
12	I often take care of non-work matters during scheduled work hours.	1.74	0.75
13	I often think about non-work issues while I am at work.	1.97	0.92
14	I often communicate with family and friends while I am at work.	2.32	0.84
15	I talk a lot about my non-work life at work.	2.00	0.75
16	At work I behave the same way as at home.	2.68	1.19
	Work-life integration (overall)	42.01	7.32

APPENDIX C

Descriptive statistics of DASS-21 and overall mental health scale

Item no.	Statements	*M*	*SD*
	Depression	4.53	3.93
3	I couldn't seem to experience any positive feeling at all.	0.80	0.75
5	I found it difficult to work up the initiative to do things.	0.92	0.70
10	I felt that I had nothing to look forward to.	0.48	0.69
13	I felt down-hearted and blue.	0.87	0.71
16	I was unable to become enthusiastic about anything.	0.66	0.66
17	I felt I wasn't worth much as a person.	0.54	0.77
21	I felt that life was meaningless.	0.26	0.57
	Anxiety	4.71	3.87
2	I was aware of dryness of my mouth.	1.07	0.79
4	I experienced breathing difficulty (such as excessively rapid breathing, breathlessness in the absence of physical exertion).	0.59	0.69
7	I experienced trembling (such as in the hands).	0.51	0.68
9	I was worried about situations in which I might panic and make a fool of myself.	0.67	0.78
15	I felt I was close to panic.	0.64	0.68
19	I was aware of the action of my heart in the absence of physical exertion (such as sense of heart rate increase, heart missing a beat).	0.72	0.76
20	I felt scared without any good reason.	0.50	0.70
	Stress	5.71	3.87
1	I found it hard to wind down.	0.96	0.76
6	I tended to over-react to situations.	0.76	0.64
8	I felt that I was using a lot of nervous energy.	0.75	0.72
11	I found myself getting agitated.	0.83	0.80
12	I found it difficult to relax.	0.75	0.70
14	I was intolerant of anything that kept me from getting on with what I was doing.	0.73	0.62
18	I felt that I was rather touchy.	0.95	0.70
	Mental health (overall)	14.94	11.05