

Comparison of stress contributing factors based on teaching experience among secondary school physical education teachers in Selangor, Malaysia

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ABSTRACT

Objective: This study identified stress contributing factors among secondary school physical education teachers and compared them based on teaching experience.

Research Methodology: This study adopted a cross-sectional study design, and the data were obtained using the survey method. This study involved 258 physical education teachers within the secondary level of public schools. The questionnaire consisted of five constructs: career dilemma, career progression, misconceptions of career, work environment and work relationship. The teaching experience was divided into four categories of 1–5 years, 6–10 years, 11–15 years and 16 years above. Descriptive statistical analysis and one-way ANOVA were used to describe the findings.

Findings: Three main contributing stressors among physical education teachers were career dilemma (mean $[M] = 35.26$, standard deviation $[SD] = 5.17$), development status ($M = 34.77$, $SD = 4.48$) and work relationship ($M = 27.09$, $SD = 2.87$). Factors contributing to stress based on teaching experience found that misconceptions of careers showed a significant result where F value (3, 254) = 3.95, $p = 0.009 < 0.05$. Tukey's *post hoc* analysis found that significant results were reported teaching experience between 1–5 and 6–10 years.

Conclusions: It was evident that teaching experience had a major influence in determining the stress level among teachers. Teaching experience assisted teachers in decision-making, which leads to better handling of stressful situations. In addition, this study observed a misconception in a career as one of the contributing factors of stress experienced by the teachers with a teaching experience of 1–5 and 6–10 years who took part in this study.

Key Words: Contributing factors, physical education, stress, teacher, teaching experience

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INTRODUCTION

The teaching profession is a challenging field of work, and its role is expanding now. This causes teachers to experience high stress (Ismail and Abdullah 2019). Similarly, teachers in Malaysia who teach, review and evaluate students and carry out other tasks such as school activities, attending courses and school

facilities programmes with parents also feel the effects of this stress (Tajulashikin et al.; Burhan 2017). A study of 356 teachers in Klang district in 2019 showed that teachers experienced high levels of depression, anxiety and stress (Zahiruddin and

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Vevehkanandar 2019). According to Klassen and Chiu (2010), teachers who face depression, anxiety and high stress are teachers who teach in secondary schools. Therefore, actions to restore and improve teachers' mental health must be worked to produce high-quality education. The literature shows that stress contributing factors and stress levels differ based on the teacher population and the research instruments used (Chan et al. 2015).

The Boyle Model [Figure 1] has been used as a reference in this study, as it is appropriate for stressful situations among teachers. This model places teacher workload, student behaviour, teaching materials, career appreciation and relationships between colleagues as factors of teacher stress (Boyle et al. 1995). However, this finding is stressful among teachers in general and not as specific to physical education teachers. Therefore, the Awadhesh (2015) instrument was used to identify stress contributing factors based on career development constructs, career dilemmas, work environment conditions, career misconceptions, personal status and relationships in PJ@PE physical education teachers' employment.

In the 1970s era, teacher careers were categorised as low-stress occupations (Francis et al. 1982). However, in recent years, stress has changed and become increasingly worrying to the point of threatening the emotional and physical health of teachers (Klassen and Chiu 2010; Oliver and Venter 2003; Zahiruddin and Vevehkanandar 2019). The current college profession is often associated with something unpleasant, disturbing emotions, depression, anxiety, depression and irritability. These are signs that teachers are experiencing high stress (Kyriacou and Sutcliffe 1978). The rapid circulation of technological advances is moving forward, contributing to the increased pressure of teachers (Zaidatol Akmaliah et al. 2011). However, Baharin and Mariam (2013), Klassen and Chiu (2010), Raja Maria (2011) and Sipon (2007) found that teacher stress stems from extra tasks. Studies by Klassen and Chiu (2010) in Canada and Senthilkumar (2018) in Tamil Nadu found that excessive workload factors predominate contributors to teacher stress.

Good relationships between members, management and administration in an organisation can reduce stress (Dunham 1992). However, workload factors, role ambiguity towards PJ, career development opportunities, relationship problems with colleagues and relationship problems with students are contributing factors to PJ teacher stress in Qatar (Al-Mohannadi and Capel 2007). The Ontario Safety Association for Community and Healthcare (2015) stated that stress due to workload can exceed the ability as well as conflict of responsibilities, while completing a task will cause a significant impact on the level of

individual health. Edwards et al. (1998), Ismail and Abdullah (2019), Mohd Kamel (2011), Mojinyinola (2008) and Rahman (2013) stated that physically and mentally disruptive teacher work environments can produce anxiety as a sign of occurrence stress.

The association between teaching experience and the level of stress endured among teachers was extensively investigated (Kyriacou and Sutcliffe 1978; Ages 2011; Ingles et al. 2019). Ages (2011) reported that teaching experience has a significant relationship with stress, with the longer the experience, the higher the teacher's stress level. This notion was supported by the findings of Skaalvik and Skaalvik (2017) as well as Aftab and Khatoon (2012); both reported that teachers with teaching experience for 6–10 years experienced higher stress than teachers with 1–5 years of experience. Teachers who have long taught experience frustration when unfulfilled wishes and desires cause experienced teachers to experience stress, leading to burnout (Ingles et al. 2019). However, it is noteworthy to highlight that more experienced teachers can manage stress better than less experienced (Kyriacou and Sutcliffe 1978).

Another contributing factor of stress experienced by teachers is relating to their respective areas of teaching specialisation. Tang and Yeung (1999) reported the importance of teachers' knowledge in understanding the contributing factors and effects of stress that can potentially disrupt and damage health psychology. When teachers are misinformed or unclear on how to perform their responsibilities, it will lead to a stressful situation for them (Gold and Roth 1993). Therefore, the purpose of this study was to examine the influence of teaching experience and specialisation of teachers among physical education teachers in Selangor.

RESEARCH METHODOLOGY

The following research methodology is compiled in conducting this study, explaining the design, population, sample and instrument of this study's findings.

Research design

This study uses a cross-sectional design. Administering the survey study in this cross-section, the researcher will determine the sample selection process (sampling) based on the total population. Samples are required to answer a questionnaire to obtain data according to the determination of study variables. This data collection process will be done only once (Cohen et al. 2012). Mohd Majid (2009) also said that questionnaires are an accurate measuring tool to use to obtain information related to beliefs, facts, perceptions and needs. Therefore, taking into account the characteristics as stated, the researcher set out to use a questionnaire instrument to obtain and collect the data of this study.

Study population and sample

A population is a group of samples in which there are similar characteristics and describe certain findings related to a group of personnel or objects (Mohamad Najib 1999). Data collected through samples can be generalised to the study population. The actual number of the study population is 728 PJ option teachers who teach PJ in secondary schools in Selangor according to the

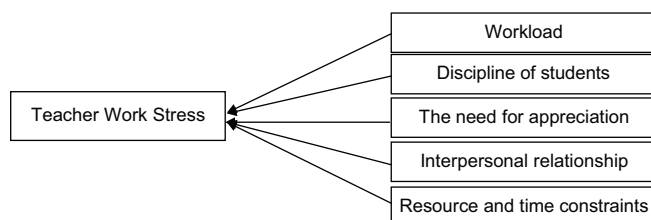


Figure 1: Teacher stress according to the model of Boyle et al. (1995)

ten education districts released by the data unit of the Selangor State Education Department.

The sample used is part of a group selected from the population to be studied and generalised by the researcher (Creswell 2012). Therefore, this study had used the sampling table of Bartlett *et al.* (2001) to estimate the number of samples, which also explains the significance level and sampling error. Based on the sample size table by Bartlett *et al.* (2001), 95% significance level with 5.0% margin of error level, a sample number of 249–260 people for the study proportional to the number of population (700–800) people is proposed. Based on ten education districts in the state of Selangor, a total of 258 teachers were recruited for this study using a simple random sampling method (fishbowl) with a percentage rate >35%. The number of recruitments based on the respective districts was Petaling Utama (26), Petaling Perdana (49), Sepang (8), Gombak (34), Sabak Bernam (10), Hulu Selangor (15), Hulu Langat (44), Kuala Selangor (18), Kuala Langat (15) and Klang (39). This total sample size was selected out of 728 physical education option (specialised) teachers in the state of Selangor.

RESEARCH INSTRUMENTS

A good study should use a measuring tool or instrument that can measure and collect quantitative data to answer the research question (Creswell 2012). Objektif mampu dicapai apabila instrumen yang baik dan dapat mengukur apa sahaja yang hendak diukur digunakan dalam kajian (Mohd Majid, 2009). Researchers used Awadhesh's (2015) Occupational Stress Questionnaire as a research instrument to identify stress contributing factors among PJ teachers. The instrument validation process was done meticulously in the early stages doing back-to-back translation by three linguists because the original questionnaire was constructed using the English medium. Next, the item and content review process was done by appointing two field experts from local universities. Next, the researchers conducted a pilot study of secondary school PJ teachers to evaluate the reliability of the instrument. After perfecting the validity and reliability process, the researchers began collecting data on stress contributing factors determined based on five-level calculations using a 5-point Likert scale in the items used to set maximum and minimum scores for class intervals and each item as follows: very low (score 10–18), low (score 19–26), medium (score 27–34) high (score 35–42) and very high (score 43–50).

RESULTS

Teks asal salah taip masa terjemahan. Menggunakan analisis deskriptif, nilai min purata keseluruhan item setiap konstruk yang dinilai bagi setiap faktor penyumbang stres dalam kalangan guru PJ sekolah menengah di negeri Selangor ditunjukkan dalam Table 1. Nilai min setiap item konstruk penyumbang stres faktor dilema kerjaya nilai skor min adalah 35.26 (SD = 5.17). At the same time, the career development factor recorded a mean score of 34.77 (SD = 4.48). Seterusnya, faktor hubungan dalam pekerjaan dengan skor min 27.09 (SD = 2.87). Similarly, the mean score of the career concept misconception factor was 23.42 (SD = 4.03),

and the mean score of the work environment condition factor was 22.52 (SD = 3.58).

ANOVA analysis showing career misconception factor value $F(3, 254) = 3.95, p = 0.009$ showed a significant difference of career misconception stress contributing factors among secondary school PJ teachers based on teaching experience. Manakala bagi faktor dilema kerjaya $F(3,254) = 2.48, p = .062$; faktor perkembangan kerjaya $F(3,254) = 2.16, p = .093$; keadaan persekitaran kerja $F(3,254) = 1.97, p = .119$; hubungan dalam pekerjaan $F(3,254) = 1.69, p = .169$; membawa maksud tiada perbezaan yang signifikan faktor penyumbang stres dalam kalangan guru PJ berdasarkan pengalaman mengajar (Table 2).

Tukey's *post hoc* analysis showed a significant difference of stress contributing factors of career misconceptions based on teaching experience between 1–5 years with 6–10 years with a mean difference value of 2.333 with *p*-value showing significant at the level of <0.05.

DISCUSSION

This study identified five factors contributing to stress among

Table 1: Mean distribution of stress contributing factors among PJ teachers in Selangor (n=258)

Factors contributing to stress	Mean	SD
Career dilemma	35.26	5.17
Career progress	34.77	4.48
Relationships at work	27.09	2.87
Wrong career concepts	23.42	4.03
Work environment conditions	22.52	3.58

SD: Standard deviation

Table 2: ANOVA analysis of differences in stress contributing factors among PJ secondary school teachers in the state of Selangor based on teaching experience

Variable	R ²	df	M ²	F	P
Career dilemma					
Between group	194.813	3	64.938	2.48	0.062
In group	6661.265	254	26.225		
Total	6856.078	257			
Career progress					
Between group	128.430	3	42.810	2.16	0.093
In group	5025.617	254	19.786		
Total	5154.047	257			
Wrong career concepts					
Between group	186.019	3	62.006	3.95	0.009*
In group	3984.931	254	15.689		
Total	4170.950	257			
Work environment conditions					
Between group	74.722	3	24.907	1.97	0.119
In group	3215.681	254	12.660		
Total	3290.403	257			
Relationships at work					
Between group	41.492	3	13.831	1.69	0.169
In group	2076.275	254	8.174		
Total	2117.767	257			

*Significant level $P < 0.05$

teachers showing the constructs of career dilemmas, career development and relationships in employment are in the category of stress at a high level. Factors of career misconceptions and work environment conditions were found to moderately contribute to stress level. Corresponding to the findings of Al-Mohannadi and Capel (2007), which identified workload, misunderstanding of work environment, work environment conditions, job recognition, career misunderstanding, career development opportunities, relationship problems with colleagues and disagreements between factors stress contributors among Qatari physical education teachers.

The career dilemma factor contributes to the stress of physical education teachers who experience boredom with work due to superiors' instructions about assignments that are often confusing. The support of poorly trained or non-option colleagues who teach physical education subjects and the perceptions and cooperation of physical education teachers are less important when determining the direction of school academic achievement. As a result, physical education teachers continue to experience career dilemmas that cause teachers stress and frustration. The study by Ages (2011) concluded that stress factors of increasing workload, disproportionate recognition and relationship problems with colleagues in the workplace are the dominant contributors to stress.

Promotion opportunities in the education sector are the best space for teachers to develop their careers. The education sector should evaluate all students' achievements in terms of co-curricular, and the curriculum does not only refer to academic achievement. Assessment for promotion focuses more on academic achievement rather than overall excellence. As a result, physical education teachers will drop out because they are not directly involved with the main examination subject. Similar to a study in Coimbatore district, Tamil Nadu, found that the contributing factors of teacher stress were related to service improvement opportunities (Senthilkumar 2018).

Good relationships between employees can help reduce stress in the workplace. However, this situation is rare for physical education teachers who experience stress due to the existence of a negative aura in the work environment (Mohd Kamel 2011). If this situation continues without a solution, it will definitely produce stress to the teacher. As a result, teachers acted to install intentions to retire early or quit work (burnout), as did physical education teachers (Ingles *et al.* 2019).

There have been situations where physical education teachers were asked to teach classes that are not within their expertise area, causing teachers to lose focus and interest in tasks according to their expertise. Teachers inevitably feel frustrated when the task entrusted to them cannot be completed and causes conflict, anger and discouragement to the point of making the teacher stressed (Gold and Roth 1993). A clear understanding of the field of work is essential to avoid misunderstanding in the concept of career; compatibility in performing tasks can reduce teacher stress Mojinyinola (2008) and Rahman (2013).

A less supportive work environment will take away the fun of working in doing tasks and can even cause teachers stress

(Edwards *et al.* 1998; Ismail and Abdullah 2019). Persekitaran yang selesa dengan kemudahan yang baik seperti ada kemudahan padang, gelanggang, alatan penting untuk guru PJ melaksanakan proses pengajaran. Apabila keperluan persekitaran pekerjaan dipenuhi, motivasi guru terangsang seperti yang dinyatakan kebanyakan literatur tentang keperluan fisiologi dan psikologi pekerja yang dipenuhi mampu meningkatkan motivasi guru untuk bekerja (Hofmann and Tetric, 2003).

To be an effective teacher, a teacher needs to have two factors, namely mastery of teaching knowledge and teaching experience. Teaching experience results when there is a continuous interaction in the teacher's teaching process with the work environment (Gist and Mitchell 1992). Teachers' diverse interactions with the environment, bitter and sweet events, successes and failures experienced in a career as an educator help build a teacher's more robust knowledge and skills. There is a significant difference of stress contributing factors of career misconceptions between PJ teachers with 1–5 years of teaching experience with teachers with 6–10 years of teaching experience. However, teachers with experience 6–10 years, 11–15 years and 16 years and above recorded no significant difference. This means that teachers with more than 6 years of experience showed no significant difference in their stress factors. This indicates that the more experienced a teacher is, the less stressed they are (Kyriacou and Sutcliffe 1978). In a study by Cousin (2000), it was reported that experienced teachers have better abilities than new teachers. This was later supported by Johari *et al.* (2009) who found that teaching experience and teachers' skills had a significant relationship.

CONCLUSION

The level of stress experienced by teachers can be reduced through the understanding of knowledge related to stress; teachers can build self-esteem and manage stress well (Gold and Roth 1993). Consistent with the statement made by former Minister of Education, Malaysia, in 2015, teachers are now overburdened with tasks that are not related to the task of teaching and educating so as to affect the actual task of teachers in schools (Mahdzir 2015). In this regard, it is a priority to re-examine the area of specialisation and link it to the respective teaching duties.

It can be concluded that the stress contributing factor among physical education secondary school teachers in the state of Selangor is the career dilemma with a mean score of 35.26 followed by career development conditions recorded a mean score of 34.77 and relationships in employment with a mean score of 27.09. The findings of the study also showed a significant difference of teacher stress on career misconception factors based on teachers' teaching experience between 1–5 years and 6–10 years. Therefore, physical education teachers need to play a role in improving knowledge about stress management and always refer to experienced physical education teachers to help manage stress problems in themselves and their careers. However, the findings of this study only describe the stress and

factors of various aspects that contribute to the stress of physical education teachers in the state of Selangor, a source of literature and discussion material in addressing issues related to stress of physical education teachers. Therefore, further study is needed to examine the situation of other states in relation to this issue.

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Conflicts of interest

There are no conflicts of interest.

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