Burnout in Primary School Teachers; The Impact of Occupational Stress, Social Support and Physical Activity

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Table of Contents

List of Tables

1. Declaration

Declaration

‘I declare that this thesis that I have submitted to Dublin Business School for the award of HDip Psychology is the result of my own investigations, except where otherwise stated, where it is clearly acknowledged by references. Furthermore, this work has not been submitted for any other degree.’

Word count: 8999

Signed: Paula Fitzgerald

Date: 19/03/2020

2. Acknowledgements

Firstly, I would like to thank my research supervisor Dr. Pauline Hyland, for all the support, advice, help and guidance she has given me throughout this process. It is very much appreciated.

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Finally, I wish to thank my family and friends for their love, support, understanding and patience during this time. I wish to especially thank my boyfriend Christopher for his endless support, encouragement and love throughout this process. I could not have done this without them.

3. Abstract

This study sought to further research into levels of burnout in primary school teachers in Ireland as well as to explore the relationship between burnout and the following variables; teachers' occupational stress, social support, physical activity, age and years of service. Quantitative correlational research was carried out with a total of one hundred and three participants (N=103), who took part in an anonymous online questionnaire. Results indicated a significant relationship between curricular and extra-curricular stress, classroom management stress and burnout. Higher levels of physical activity significantly predicted lower levels of burnout. Social support did not have a role in reducing burnout. Older teachers had significantly less burnout. There was not a significant relationship between burnout and years of service. The findings highlight the specific teachers' stressors which contribute to burnout and the protective factor physical activity has in relation to burnout. These findings correlate with previous research in this area.

4. Introduction

The following literature examines the phenomenon of burnout and more specifically burnout in teachers. The literature in relation to the history of burnout and definitions of burnout will be addressed firstly. Following this burnout in relation to teachers will be looked at which will include information on the variables of age, gender and years of service. Subsequently the literature pertaining to the variables of teacher's occupational stress, social support, physical activity, age and years of service will be explored. This research is being conducted to examine if the variables have a significant effect on levels of burnout in Irish primary school teachers.

4.1 History of Burnout

Burnout in work occupations is not a new phenomenon. It had been looked at in detail across many professions over the last 40 years. The concept of burnout began in the 1970's when Maslach a social psychologist and Freudenberg, a clinical psychologist came across the issue in their respective positions (Maslach, Leiter & Schaufeli, 2009). Maslach and Freudenberg were the first to produce articles on burnout, where they looked at the phenomenon of burnout, clearly identifying its characteristics and highlighting how it was much more common than previously thought (Maslach & Schaufeli, 2017). To begin with there was much confusion on the definition of burnout and it wasn't until the 1980's that burnout entered a more focused, constructive and empirical period (Maslach, 1999). With this, a standard measure of burnout was developed. This equipped researchers with precise definitions and methodological tools for studying the phenomenon of burnout (Maslach & Schaufeli, 2017).

4.2 Burnout Defined

Burnout was defined as the following: “burnout is a psychological syndrome in response to chronic interpersonal stressors on the job” (Maslach, Leiter & Schaufeli, 2009, p. 90). Within that there are three key dimensions of this response which are, an over whelming exhaustion; feelings of cynicism (depersonalization) and detachment from the job; and a sense of ineffectiveness and lack of accomplishment. The exhaustion element represents the basic individual stress dimension of burnout. This relates to one feeling overextended and depleted of emotional and physical resources. The cynicism element represents the interpersonal distancing dimension of burnout, which could include negative or detached response to aspects of the job or losing cognitive or emotional involvement with the job. The lack of accomplishment element refers to the self-evaluation element of burnout which signifies a lack of achievement in work or feeling of incompetency. (Maslach et al., 2009). The three key elements mentioned combine to give a clearer indication of what exactly burnout is and the different areas that are affected when individuals are experiencing burnout.

4.3 Burnout in Teachers

Huberman and Vandenberghe (1999) highlighted that burnout has been recognised as a stress related problem for individuals who work in interpersonally orientated professions and education is a prime example of this. They identified that providing affective, instructional and moral services to pupils makes emotional demands on the teachers. These demands then take place within what one could say is a complex network of interactions. (Huberman & Vandenberghe, 1999). Those interactions that teachers have daily include ones which are quite intense such as interactions with their pupils, interactions with other members of staff and the principal. Other interactions are considered more remote such as outside services coming into the school as well as the children’s parents and guardians and also

interactions between teachers and inspectors. The more remote interactions in education take emotional energy from teachers but give little of it back (Huberman & Vandenberghe, 1999).

Schwab, Jackson and Schuler (1986) emphasised when teachers who were feeling emotionally exhausted were asked to describe how they felt they responded with comments such as they felt drained or used up and physically fatigued. They then suggested that emotionally exhausted teachers tried to cope by depersonalising their students and co-workers, they tried to put distance between themselves and others. They can become detached and cynical towards others whom they work with. Feelings of low personal accomplishment developed when individuals who had great expectations of making contributions to school and society felt that after a year or two in the job, they are not living up to the expectations they put on themselves (Schwab, Jackson & Schuler, 1986).

Chang (2009) in a review of teacher burnout looked at the elements associated with burnout as mentioned above and identified that emotional exhaustion is the core element of burnout and has the most obvious manifestation of this complex syndrome (Chang, 2009). With that Chang (2009) stated the emotional exhaustion is a personal psychological status. Chang also pointed out that early studies identified prolonged stressors from a teacher's work environment generally caused teacher burnout. Chang also noted that the three-dimensional model of burnout was a significant foundation for researchers to investigate the issue. They were able to capture burnout symptoms amongst teachers and examine further the factors that contribute to teacher burnout (Chang, 2009). The goal of the current study is to investigate how Irish primary teachers feel and how much burnout they may be experiencing.

4.4 Background Variables and Burnout

Previous research into burnout in teachers has identified the importance of particular background variables such as gender, age, years of experience, marital/family status, class taught and type of student taught (Byrne, 1999).

In relation to years of service Borg and Falzon (1989) (as cited in Byrne, 1999, p. 20) found teachers with more than 20 years of service had significantly higher levels of stress than their less experienced colleagues. In contrast Malik, Mueller and Meinke (1991) (as cited in Byrne, 1999, p. 20) found that years of service did not account for a significant degree of variance in occupational stress in elementary and secondary teachers. This current study aims to examine differences in levels of burnout in relation to the years of service teachers have.

Regarding age the literature is mixed, Friedman & Faber (1992) (as cited in Chang 2009, p. 200) found teachers between 20 and 30 years who were considered younger teachers had a higher tendency for burnout compared to teachers aged between 30 and 40 years, most notably in the dimensions of emotional exhaustion and depersonalization. They also found that teachers over the age of 45 reported considerably lower levels of personal accomplishment (Friedman & Faber, 1992). Antoniou, Polychroni and Vlachakis (2006) in a study looking at stress and burnout in primary and secondary teachers in Greece found that younger teachers experienced higher levels of burnout specifically in terms of emotional exhaustion and disengagement. Compared to older teachers who experienced higher levels of stress in terms of the support they receive from the government (Antoniou, Polychroni & Vlachakis, 2006). Russell, Altmaier and Van Velzen (1987) in their research into teacher burnout found that younger teachers indicated that they had experienced a greater number of stressful events compared to older teachers (Russell, Altamier & Van Vlezen, 1987).

However, in research conducted by Zabel and Zabel (2001) they found that age was not as significantly related to burnout as it was in the past, though they noted that older, more experienced teachers do appear to find more personal accomplishment in their work (Zabel & Zabel, 2001). This current study aims to examine differences in levels of burnout across the age groups.

Concerning gender differences Chang (2009) highlighted the fact that some studies for example (Kahn et al., 2006) found no significant differences in teacher burnout between males and females (Chang, 2009). Arvidsson, Hakansson, Karlson, Björk and Persson (2016) also didn't find any gender differences in relation to severe burnout among teachers in a Swedish study. However, Antoniou et al. (2006) found that gender did have an effect on stress and burnout. They found that female teachers had higher levels of occupational stress than male teachers. Females in their study presented with higher levels of emotional exhaustion compared to their male counterparts (Antoniou et al., 2006). Similarly, Gursel, Sunbul and Sari (2002) also found female teachers had significantly more emotional exhaustion than male teachers. Antoniou, Ploumpi and Ntalla (2013) in their findings found that female teachers reported significantly higher levels of occupational stress than male teachers. As the teaching profession in Ireland is dominated by females, this tends to be an issue in determining whether gender has an effect on burnout. However, the gender difference previously found in research is still deemed an important point to note.

4.5 Teacher's Occupational Stress

Teaching has been identified as a particularly stressful occupation and the prevalence of stress among teachers is now well documented (Borg & Riding, 1991). Stress and our understanding of it has originated in the research completed by Deorgatis (1987). According to Deorgatis stress may be characterised as a state of psychological pressure which is

influenced by three main sources, personality mediators, environmental factors and emotional responses (Montgomery & Rupp, 2005). The reality of life in the classroom for teachers has made teaching a stressful occupation (Schwab et al., 1986). It is hard to fully define teacher stress but Kyriacou (2001) who has conducted research into teacher burnout and stress since the 1970's defines it as the following; "experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work as a teacher" (Kyriacou, 2001, p. 28).

Kyriacou (2001) highlighted the following as the main sources of teacher stress; teaching pupils who lack motivation, maintaining discipline in the classroom, coping with time pressures and workload, coping with change, being evaluated by others, dealings with colleagues, self-esteem and status, administration and management, role conflict and ambiguity along with poor working conditions. Kyriacou (2001) does make it clear that while the above are causes of teacher stress, one needs to be clear that the main sources of teacher stress are unique to the individual themselves and will depend on the complex interaction between the person's personality, values, skills and circumstances. He highlighted the most common sources of teachers' stress but reiterated the fact that one cannot overlook the specific concerns of the individual teacher (Kyriacou, 2001). Russell et al. (1987) also identified many negative stressful aspects of the job; disciplinary problems, student apathy, involuntary transfers, overcrowded classrooms, excessive paperwork, inadequate salaries and demanding or unsupportive parents. Cunningham (1982) identified that as a result of the stress teachers are under, burnout occurs and the symptoms of burnout manifest in physical, psychological and behavioural symptoms. Headaches and ulcers were examples of physical symptoms, depression and anger were some psychological symptoms and absenteeism and deterioration in work performance were noted as behavioural symptoms (as cited in Russell et al., 1987).

In a study conducted into Queensland independent teachers and their workload, researchers found that teachers workload represented the major source of dissatisfaction with their work environment. Participants in the research also felt that their workload was continuously increasing each year. There were clear indications that teachers felt pressure in regard to their performance from various sources, which included society and parents (Timms, Graham & Cottrell, 2007). One point which was most noteworthy from this study was that "The present study has demonstrated that teachers in independent schools in Queensland are working with unsustainable and health threatening workloads under conditions where they feel pressured" (Timms et al., 2007, p. 584). This study seeks to examine the sources of stress for Irish primary teachers.

4.6 Social Support and Burnout

Since about the 1970's there has been a lot of interest in the role of social support as a coping mechanism for people. It has been demonstrated that the adequacy of social support can act as a safeguard between stressful life events and symptoms (Zimet, Dahlem, Zimet & Farley, 1988). Russell et al. (1987) highlighted that social support is a resource that enables people to cope with stress. Zimet et al. (1988) found that it was hard to fully define social support. They stated that while researchers in the area of social support agree that it involves some kind of relationship transactions between people, the nature of the interaction is specified in a number of ways (Zimet et al., 1988).

Russell et al. (1987) highlighted that according to moderating hypothesis on social support, persons who have supportive social relationships are able to rely on others to help them in dealing with situations that are stressful. As a result of these supportive social relationships stress, when it occurs, does not have negative consequences on their psychological or physical health. Russell et al. (1987) also stated that those who don't have

supportive social relationships are much more susceptible to the effects of stress. They also report that it has been consistently found by researchers that persons who have high levels of social support also are in better health both physically and mentally (Russell et al., 1987). In their study Russell et al. (1987) found that teachers who reported that they had supportive supervisors and that they had received positive feedback in relation to their abilities and skills from others were less vulnerable to burnout (Russell et al., 1987). They also found that that social support and relationships outside of the workplace may play a role in the ability of teachers to deal with work related stress (Russell et al., 1989). Chang (2009) remarked that social support does provide opportunities to individuals for reappraisal and adaptive responses to work stress and in so doing easing burnout (Chang, 2009). Schwab et al. (1986) also identified that social support groups are beneficial to teachers as they can minimize the effects of burnout on people, in this case teachers (Schwab et al., 1986).

Heitzman and Kaplan (1988) emphasised that social support may have an impact on individuals physical and psychological health through its stress-mediating or stress buffering roles. Greenglass, Fiksenbaum and Burke (1995) identified that social support provided to teachers over time could contribute to lower levels of burnout by providing resources for the effective handling of stressful situations. They also state that this support could be provided by friends and family, co-workers or one's supervisor (Greenglass, Fiksenbaum & Burke, 1995). Greenglass et al. (1995) conducted research in a large Canadian city into the levels of burnout teachers felt and the levels of social support they received over the previous few years. The researchers found that social support may be inoculating the respondents against the harmful effects of stress. The results suggested to the researchers that social support was functioning as a buffer for the respondents. With that the researchers determined that with increased social support available to teachers, stressful work incidents are less likely to

produce teacher burnout (Greenglass et al., 1995). Therefore, it is important to examine the role of social support in buffering the impact of stress and burnout.

Zhang and Zhu (2007) conducted research into teacher stress, burnout and social support in Chinese secondary education. The researchers found that family and friend support was the most common source of social support for the teachers and that family and friend social support was the most effective in mitigating depersonalization. The researchers also noted that their study suggests that social support can relieve teacher stress and burnout in Chinese secondary teachers (Zhang & Zhu, 2007).

Fiorilli et al. (2015) in research conducted comparing teachers in Italy and Switzerland looked into the effect of teacher's emotional intensity and social support on burnout syndrome. They found that the buffering role of satisfactory support was evident for all burnout measures in both of the teacher groups. Social support did act as a buffering method against burnout in both Italian and Swiss teachers who took part in the study (Fiorilli et al., 2015). This study seeks to identify the types of social supports available to teachers be it from family, friends or a significant other. It aims to examine if higher levels of social support from a significant other, family and friends results in lower levels of burnout.

4.7 Physical Activity and Burnout

The early Greek philosophers were the first individuals to speak about the concept of a mind-body connection (Philips, Kiernan & King, 2001). Researchers have found that exercise benefits a person's mental health along with their physical health. It has also been found in research conducted on the benefits of exercise, that moderate and intense physical activities may produce important physical and psychological gains for the individuals who undertake the activities (Santrock, 2003). This mind-body connection is very much evident in the positive effects that engaging in physical exercise can have on a person's mental health.

Physical exercise has been defined as “activity that is planned structured, repetitive, and purposeful with the objective of improving one or more aspects of physical fitness” (Philips et al., 2001, p. 628).

Fox (1999) in a review and summary piece on the influence of physical activity on mental wellbeing identified that exercise can be very useful in treating and avoiding depressive illness. It can be used as a method of reducing stress and anxiety on a daily basis (Fox, 1999). Research shows that even single bouts of exercise can improve an individual’s mood and also sleep quality. Research also suggests that individuals who are more active are likely to rate themselves and also their sense of mental well-being more positively (Fox, 1999). Fox (1999) points out that the “feeling good effect” that exercise produces for individuals seems to be validated by research (Fox, 1999, p. 414). Considering this, it is important to examine levels of physical activity in teachers as it may reduce feelings of stress and burnout.

Naczenski, de Vries, van Hooff, and Kompier (2017) conducted a systematic review of the association between physical activity and burnout. In the review, their findings suggest that physical activity constitutes a valuable medium to combat burnout (Naczenski, de Vries, van Hooff, & Kompier, 2017). It is thought that both psychological and physiological effects may be responsible for the positive effects of exercise on burnout. Research suggests that regular physical activity facilitates psychological detachment from work. As a result of this it reduces the risk of prolonged stress responses such as burnout (Naczenski et al., 2017). In relation to physiological effects, it has been suggested that by engaging in regular physical activity, one is able to handle psychological stress (that is the cardiovascular fitness hypothesis) which may result in faster bodily recovery after one is exposed to stress which in turn reduces the risk of burnout (Naczenski et al., 2017).

Sane, Devin, Jafari and Zohoorian (2012) in research they conducted into physical activity levels and the relationship with burnout levels in academic members of Daregaz Universities found that their results showed a significant inverse correlation between physical activity and its components levels of burnout. What this meant was that people who partook in a lot of physical activity had lower levels of burnout. Physical activity can help improve physical and mental health along with reducing job stress and ultimately reducing the amount of job burnout experienced by individuals (Sane, Devin, Jafari & Zohoorian, 2012).

Carson, Baumgartner, Matthews and Tsouloupas (2010) in their study examined the impact of physical activity behaviours in childcare teachers. They found that their results demonstrated that leisurely physical activities away from work and routine physical activity at work are key tactics for buffering against teacher burnout. They also found that physical activity doesn't necessarily have to wait until after work, it can be done at work too. (Carson, Baumgartner, Matthews & Tsouloupas, 2010). The researchers emphasised the fact that their findings echo the important role physical activity has in preventing negative stress responses by individuals (Carson et al., 2010) .They stressed the point that childcare teachers should be encouraged to engage in physical activity to help reduce burnout. (Carson et al., 2010). They noted that this "study makes a significant contribution to the literature by identifying physical activity as a successful, theoretically driven strategy for relieving childcare teacher burnout and its associated outcomes" (Carson et al., 2010, p. 912). Considering the recommendations from Carson et al. (2010) it is important to examine this in teachers and to assess the relationship if any between physical activity and burnout. This study will assess if teachers who engage in regular physical activity have lower levels of burnout.

4.8 Aims

The purpose of this study is to further research into the levels of burnout in primary school teachers in Ireland. This research also seeks to further explore the relationship between teachers' occupational stress (curricular and extra-curricular stress, classroom management stress and working conditions stress) and burnout, social support (significant other, family and friends) and burnout, physical activity and burnout, age and burnout and years of service and burnout in primary school teachers. While there has been much research carried out on burnout in teachers in other countries, there is significantly less research carried out from an Irish perspective. Through the analysis of quantitative data from a convenient sample of primary school teachers, this study will look at the relationship between burnout, stress, physical activity, social support, age and years of service. These variables will be assessed using the participants scores on questionnaires that evaluate teachers occupational stress, perceived social support, burnout, physical activity, age and years of service.

4.9 Hypotheses

This study hypothesises the following:

Hypothesis 1: There will be a significant relationship between teachers' occupational stress (subscales: curricular and extra-curricular stress, classroom management stress and working conditions stress) and burnout in primary school teachers.

Hypothesis 2: Primary school teachers with higher levels of social support (subscales: significant other, family and friends) have lower levels of burnout.

Hypothesis 3: Primary school teachers with higher levels of physical activity have lower levels of burnout.

Hypothesis 4: There will be a significant relationship between age and burnout in primary school teachers.

Hypothesis 5: There will be a significant relationship between years of service and burnout in primary school teachers.

5. Methodology

5.1 Participants

This study consisted of Irish primary school teachers only. A total of one hundred and three participants (N=103) completed the online anonymous questionnaire. The sample of teachers were Irish based and qualified primary school teachers in order for it to contextualise the data. The sample consisted of 101 females and 2 males, whose age ranged from 23 to 60, mean age was 35.89, standard deviation 8.62. Participants were sourced in the following two ways; the questionnaire was shared on a social media internet forum; also, primary school principals were contacted to seek consent to share the questionnaire with their teaching staff to complete. In both cases a message explaining the study was posted along with a link to the study. Participants consisted of permanent (81.6%), temporary (14.6%) and substitute (3.9%) primary school teachers . All participation was voluntary.

5.2 Design

This study used a quantitative correlational study in its approach. Data was gathered using purposive sampling and snowball sampling. The criterion variable (CV) of the study was burnout and the predictor variables (PVs) were teachers' occupational stress (subscales: curricular and extra-curricular stress, classroom management stress and working conditions stress), perceived social support (subscales: significant other, family and friends), leisure-time exercise, age and years of service. The quantitative data was analysed using the Statistical Package for Social Sciences (SPSS) version 26.

5.3 Materials

Four different questionnaires were used to collect data in the study. They included the Oldenburg Burnout Inventory (OLBI) (Demerouti & Bakker, 2008), Teachers' Occupational Stress Questionnaire (TOSQ) (Hendres, Curelaru, Ashiri, Gherman & Diac, 2014),

Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988) and the Godin- Leisure Time Exercise Questionnaire (Godin & Sheppard, 1997).

The online questionnaire facilitated by Microsoft Forms, included the above quantitative measurements along with a range of demographics questions which were as follows: gender, age, job status, job position, years of service, how many children are you teaching, if you are a mainstream class teacher are you teaching a multi-grade or single-grade class, do you have children with special needs in their class, if so how many and if you have children with special needs in your class do you have SNA support.

The first scale used was The Oldenburg Burnout Inventory (OLBI) (Demerouti & Bakker, 2008) which is a reliable and valid measure for the assessment of burnout. Reliability has been measured as .85 (Demerouti & Bakker, 2008). The OLBI includes positively and negatively framed items to assess the two core dimensions of burnout: exhaustion and disengagement (from work) (Demerouti & Bakker, 2008). The OLBI measure consists of 16 statements. Participants were asked to read each statement and respond as they felt accordingly to each of the statements. Items in the questionnaire are scored form 1- 4, One represents SD (strongly disagree), where four represents SA (strongly agree). Positively worded items are reversed scored (items 1, 2, 5, 7, 10, 11, 15), SD (strongly disagree) = four, SA (strongly agree) = one. Example items in the measure are; “I always find new and interesting aspects in my work”, “When I work, I usually feel energised”, “Lately, I tend to think less at work and do my job almost mechanically” and “During my work, I often feel emotionally drained.” Higher scores indicate more burnout (Demerouti & Bakker, 2008).

The second scale used was the Teachers’ Occupational Stress Questionnaire (TOSQ) (Hendres et al., 2014). This TOSQ scale is comprised of 20 items. Participants were asked to read each statement and to respond accordingly to how they felt about each statement. Each

of the items were rated on a six-point scale, 1- *this activity does not stress me at all* to 6- *this activity stresses me very much.* The 20 items of the questionnaire were derived based on Shirom, Oliver and Stein (2009) description of the main sources of stress in teaching (Hendres et al., 2014). The questionnaire assesses what is believed to be the main stresses that teachers face in teaching, which includes some of the following items in relation to pupils, teaching conditions, preparatory work, inspections and so on (Hendres et al., 2014).

Within the TOSQ scale there are 3 subscales: Subscale one "Curricular and extra-curricular activity stress" items numbered (5, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19) assess this type of stress with questions such as: "To make trips with students" and "To have inspections or evaluative situations in the classroom". A minimum score of 11 indicates low levels of curricular and extra-curricular stress to a maximum score of 66 which indicates high levels of stress. Reliability was measured as .88 (Hendres et al., 2014).

Subscale two "Classroom management stress" items numbered (1, 2, 3, 4, 8, 20) assess this type of stress with questions such as: "To keep quiet in class" and "To maintain discipline and order in the classroom". A minimum score of 6 indicates low levels of classroom management stress to a maximum score of 36 indicates high levels of stress. Reliability was measured as .83 (Hendres et al., 2014).

Subscale three "Working conditions stress" items numbered (6, 7, 9) assess this type of stress with questions such as "To teach in noisy conditions (e.g. too much noise outside in the street)" and "To teach in unsuitable thermal conditions (e.g. too cold)" A minimum score of 3 indicates low levels of working condition stress to a maximum score of 18 which indicates high levels of stress. Reliability was measured as .62 (Hendres et al., 2014).

The third scale used in the questionnaire was the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988). This scale measures participants perceived social support

from family, friends and a significant other. There are twelve items on the scale and the items are divided into factors groups/ subscales relating to the source of social support. Participants were asked to read each statement carefully and indicate how they felt about each statement on a scale of 1 (Very strongly disagree) to 7 (Very strongly agree). The three subscales are as follows "Significant other" assess the social support of a significant other, items numbered (1, 2, 5, 10). Reliability was measured as .91 (Zimet et al., 1988) Examples of statements on this subscale are: "There is a special person who is around when I am in need" and " I have a special person who is a real source of comfort to me".

"Family" assess the social support of family, items numbered (3, 4, 8, 11). Reliability was measured as .87 (Zimet et al., 1988) Examples of statements on this subscale are: "I get the emotional help and support I need from my family" and "I can talk about my problems with my family".

"Friends" assesses the social support of friends, items numbered (6, 7, 9, 12). Reliability was measured as .85 (Zimet et al., 1988). Examples of statements on this subscale are: "My friends really try to help me" and "I can count on my friends when things go wrong". Any mean total scale score ranging from 4 to 11.9 could be considered low support; a score of 12 to 20 could be considered moderate support; a score from 20.1 to 28 could be considered high support (Zimet et al., 1988).

The fourth scale included in the questionnaire was the Godin Leisure-Time Exercise Questionnaire (Godin & Sheppard, 1997). This questionnaire asked participants to complete a self-explanatory, brief three item query of usual leisure-time exercise habits. Participants were asked to indicate how many times on average during a typical 7-day period they engage in strenuous (running, jogging, soccer), moderate (fast walking, tennis, easy swimming) and mild (yoga, bowling, golf) exercise for more than 15 minutes during their free time (Godin &

Sheppard, 1997). Reliability was measured as . 74 (Godin & Sheppard, 1985). Participants indicated their answer by putting a number representing the amount of days they undertook strenuous, moderate and mild exercise in the box beside the question. A score of 24 units or more is considered active, a score of between 14-23 units is considered moderately active and a score of less than 14 units is considered insufficiently active/sedentary.

5.4 Procedure

Participants were sourced using snowball sampling and purposive sampling of male and female primary school teachers via a questionnaire on Microsoft Forms. Participants voluntarily responded and completed the online anonymous questionnaire. Participation was completely voluntary and there were no rewards or incentives offered in lieu of involvement. The recruitment of participants was conducted in two ways, the questionnaire and information about the research was shared using the social media networking site, Facebook. Also, numerous principals were contacted in regards to sharing the questionnaire with their staff. The questionnaire along with information regarding the research was emailed to the principals, which was forwarded onto their staff members.

When participants clicked on the link to the questionnaire, they were presented with the information sheet, details included information on the research being conducted, an invitation to voluntarily take part and contact details of the researcher and supervisor. Prior to proceeding participants had to consent to taking part in the research. Demographic questions were included in section 1. Section 2 consisted of The Oldenburg Burnout Inventory, section 3 comprised of the Teachers' Occupational Stress Questionnaire. Section 4 comprised of the Multidimensional Scale of Perceived Social Support and section 5 consisted of the Godin-Leisure Time Exercise Questionnaire. Following completion of the questionnaire participants were taken to the debrief page. This page included information in regard to the research,

contact details of the researcher and supervisor. It also included information on support groups should the participants have felt any negative emotions following the completion of the questionnaire. On average it took 10 minutes to complete the questionnaire.

5.5 Ethics

The proposed questionnaire with questions and instruments along with the steps undertaken to protect the rights of the participants was granted approval by the Psychology Department of Dublin Business School Ethics Committee. To begin, participants were given an overview of what the questionnaire entailed along with contact details of the researcher and supervisor. Participants were reminded that participation was completely voluntary. Each participant had to click that they consented to participate in the questionnaire and that their unidentifiable data be used in the research. Participants were assured that it was an anonymous questionnaire they were completing, assuring total confidentiality of the information given. Participants were made aware that they could not withdraw their data once they had submitted it. Participants were also made aware that the data was stored on a password secure laptop. Following the completion of the questionnaire participants were provided with contact details of support services should they have felt any negative emotions upon completion. Once again, contact information of the researcher and supervisor was provided.

5.6 Data Analysis

The data was analysed using SPSS version 26 software.

6. Results

6.1 Introduction

The purpose of this study was to assess levels of burnout in Irish primary school teachers and the impact if any, the variables of teachers' occupational stress, social support, physical activity, age and years of service have on burnout. Data analysis was carried out to determine the results of the study using SPSS version 26. Reliability analysis was completed to determine whether the results from this current research study were similar to previous research studies. Both descriptive statistics and inferential statistics were carried out in accordance with the hypotheses. Descriptive statistics provided a demographical breakdown of the participants along with providing the mean, standard deviation, variance and range (min and max) of the variables.

6.2 Descriptive Statistics

Table 1 provides details of background information on participants namely their position within the school and their job status at present.

Table 1 *Descriptive Statistics of Participants Background*

Variable	N	%
Job position		
Principal	3	2.9
Mainstream class teacher	75	72.8
Learning support/resource teacher	25	24.3
Total	103	100.0
Job status		
Permanent	84	81.6
Temporary	15	14.6
Substitute	4	3.9
Total	103	100.0

A total of (N=103) participants took part of which, 2.9% were principals, 72.8% are mainstream class teachers and 24.3% are learning support/resource teachers. The job status of participants is as follow: permanent 81.6%, temporary 14.6% and substitute 3.9%. The years of service of participants ranged from a minimum of 1 year of service to a maximum 40 years of service with a mean of 12.59 and standard deviation of 8.67.

Table 2 provides details about the classroom environment of participants. It identifies how many teachers have children with special needs in their classroom. It also details if they are teaching in a multi-grade or single-grade class.

Table 2 *Descriptive Statistics of Classroom Environment*

Variable	N	%
Class with children with special needs		
Yes	72	75
No	24	25
Total	96	100.0
Teaching a multi-grade/single-grade class		
Multi-grade	28	33.7
Single-grade	55	66.3
Total	83	100.0

Of the total of the participants who answered the question in relation to children with special needs in their classroom (N=96), 75% have children with special needs and 25% have not. Of the total of the participants who answered the question in relation to whether they were teaching in a multi-grade or single-grade class (N=83), 33.7% are teaching a multi-grade class, where as 66.3% are teaching a single-grade class. The number of children participants are teaching varied from a minimum of 6 to a maximum of 34 with a mean of 22.72 and standard deviation of 7.03.

Table 3 indicates the scores in relation to the variables of burnout and teacher's occupational stress (subscales: curricular and extra-curricular stress, classroom management stress and working conditions stress).

Table 3 *Descriptive Statistics of the variables of Burnout and Teachers' Occupational Stress*

	OLBI Total	TOSQ Curricular stress	TOSQ Classroom stress	TOSQ Working conditions stress
Mean	41.43	37.98	20.49	10.53
Std. Deviation	5.32	8.63	5.08	3.60
Variance	28.33	74.40	25.79	12.97
Range	28.00	37.00	23.00	15.00
Minimum	31.00	19.00	9.00	3.00
Maximum	59.00	56.00	32.00	18.00

The mean score of 37.98 and standard deviation of 8.63 in TOSQ curricular and extra-curricular stress indicates a moderate level of stress. It is important to note that the maximum score of 56.00 indicates a very high level of stress in this area. The mean score of 20.49 and standard deviation of 5.08 in TOSQ classroom management stress indicates a moderate level of stress in this area. The maximum score of 32 indicates a very high level of stress when dealing with classroom management issues. The mean score of 10.53 and standard deviation of 3.60 in TOSQ working conditions stress indicates a moderate level of stress in this area. The mean of 41.43 and standard deviation of 5.32 in OLBI total indicates a moderate to high level of burnout. The maximum score of 59.00 indicates very high levels of burnout.

Table 4 indicates the scores of the variables of social support (subscales: significant other, family and friends) and leisure time exercise.

Table 4 *Descriptive Statistics of the variables of Social Support and Leisure Time Exercise*

	PSS Significant other	PSS Family	PSS Friends	Leisure Time Exercise
Mean	22.14	21.69	22.32	33.90
Std. Deviation	5.51	4.87	4.00	25.24
Variance	30.37	23.76	16.02	637.19
Range	24.00	24.00	24.00	119.00
Minimum	4.00	4.00	4.00	0
Maximum	28.00	28.00	28.00	119.00

The mean scores of 33.90 and standard deviation of 25.24 in the variable Leisure time exercise indicates the sample mean are regarded as active according to Godin & Sheppard (1997) interpretation of results. The minimum score of 0 indicates some participants engaged in no leisure time exercise over a 7-day period. The subscale of significant other has a mean score of 22.14 and standard deviation of 5.51 with a minimum score of 4 and a maximum of 28. This indicate that some participants experience high levels of social support from a significant other.

Table 5 indicates the Cronbach's alpha reliability scores for the scales used.

Table 5 *Cronbach's Alpha Reliability Scores*

Scale	N	Cronbach's alpha	Number of items
OLBI	97	.78	16
LTE	96	.61	3
PSS Significant other	98	.87	4
PSS Family	101	.90	4
PSS Friends	101	.87	4
TOSQ Curricular	95	.78	11
TOSQ Classroom	100	.73	6
TOSQ Working conditions	101	.62	3

In relation to reliability, anything over .7 is considered satisfactory, though .8 would be preferable. The majority of the scales used reached that point.

6.3 Inferential Statistics

The aim of this study was to investigate levels of burnout (measured by the OLBI) in primary school teachers in Ireland and to see what influence the variables of teachers' occupational stress (measured by the TOSQ), social support (measured by the Perceived Social Support Scale) and leisure time exercise (measured by the Godin Leisure Time Exercise Questionnaire), age and years of service had on burnout.

6.3.1 Hypothesis 1

There will be a significant relationship between teachers' occupational stress (subscales: curricular and extra-curricular stress, classroom management stress and working conditions stress) and burnout. Multiple regression analysis was used to test whether teachers' occupational stress (subscales: curricular and extra-curricular stress, classroom management stress and working conditions stress) were predictors of burnout in teachers. Checks were completed and all assumptions were normal and complied with the assumptions for multiple regression analysis. The results of the regression indicated that the three predictors explained 29% of the variance (R^2 =.29, F(3, 88) = 13.42, p<.001). It was found that curricular and extra-curricular stress predicted burnout (β =.39, p = .002, 95% CI =.09, .39) as did classroom management stress (β = .24, p=.037, 95% CI = .02, .49), however working conditions stress was not a predictor of burnout (β = -.02, p =.822, 95% CI = -.34, .27). Curricular and extra-curricular stress was the stronger predictor of burnout. Overall, it was a significant result therefore the null hypothesis is rejected.

6.3.2 Hypothesis 2

Primary school teachers with higher levels of social support (subscales: significant other, family and friends) have lower levels of burnout. Multiple regression was used to test whether higher levels of social support (subscales: significant other, family and friends) were predictors of lower levels of burnout in teachers. Checks were completed and all assumptions were normal and complied with the assumptions for multiple regression analysis. The results of the regression indicated that the three predictors explained 1% of the variance (R^2 =.01, F (3, 89) = 1.17, p = .326). It was found the support from a significant other did not predict lower levels of burnout (β =.14, p =.296, 95% CI = -.12, .38), family support did predict lower levels of burnout (β = -.23, p = .107. 95% CI = -.57, .06), also friends support did not predict lower levels of burnout (β = -.02, p = .891, CI 95% = -.36, .31). The results were not significant; therefore, the null hypothesis is not rejected, social support does not have a role in reducing burnout in teachers.

6.3.3 Hypothesis 3

Primary school teachers with higher levels of physical activity have lower levels of burnout. Linear regression was used to test whether teachers with higher levels of physical activity have lower levels of burnout. Checks were completed and all assumptions were met as required for a linear regression. Using linear regression, it was found that higher levels of physical activity significantly predicted lower levels of burnout (F (1, 89) = 9.68, p = .003, R^2 = .09) (Total LTE, beta = -.31, p = .003, CI (95%) -.11, -.03). The results were significant therefore the null hypothesis is rejected. A negative relationship was found; therefore, exercise has a role and can be seen as a protective factor in relation to burnout for teachers.

6.3.4 Hypothesis 4

There will be a significant relationship between age and burnout in primary school teachers. Linear regression was used to test if there is a significant relationship between age and burnout in teachers. Checks were completed and all assumptions were met as required for a linear regression. Using linear regression, it was found that age of teachers significantly predicted levels of burnout. ($F (1, 95) = 6.12$, $p = .015$, $R^2 = .05$) (Age, beta = -.25, $p = .015$, CI (95%) -.28, -.03). The results were significant therefore the null hypothesis is rejected. A negative relationship was found, therefore older teachers have lower levels of burnout.

6.3.5 Hypothesis 5

There will be a significant relationship between years of service and burnout in primary school teachers. Linear regression was used to test if there is a significant relationship between years of service and burnout in teachers. Checks were completed and all assumptions were met as required for a linear regression. It was found that years of service did not significantly predict levels of burnout in teachers. ($F (1, 95) = 3.91$, $p=.051$, $R^2 = .03$) (Year of service, beta = -.20, $p = .051$, CF (95%) -2.53, .00). The results were not significant therefore the null hypothesis is not rejected, and years of service does not have a role in reducing burnout in teachers. However, while years of service does not affect burnout it should be noted that the results are approaching significance.

7. Discussion

The aim of this research was to assess levels of burnout in Irish primary school teachers and to see the impact if any the variables of teachers' occupational stress, perceived social support, physical activity and also the variables of age and years of service have on burnout.

7.1 Hypothesis 1

This investigation examined the assumption that there will be a significant relationship between teachers' occupational stress and burnout. A multiple regression was performed and the results indicated a significant relationship; teachers occupational stress was a predictor of burnout in teachers. Curricular and extra-curricular stress was the strongest predictor of burnout followed by classroom management stress. Working conditions stress was not a predictor of burnout. This result supports hypothesis one. This result is consistent with findings from Kyriacou (2001) who identified the main sources of teacher stress; coping with time pressures and workload, being evaluated by others, dealing with colleagues, maintaining discipline in the classroom. It also supported work by Russell et al. (1987) who identified stressful aspects of the job which included excessive paperwork, disciplinary problems, student apathy. This result also supports Huberman and Vandenberghe's (1999) work that burnout has been recognised as a stress related problem for professions like education. The stressors teachers face on a daily basis can lead to burnout. The curricular and extra-curricular stress and classroom management stress are predictors of burnout for teachers in this research. Teachers in this research may be facing those types of stressors on a daily basis and if the stressors are prolonged, they can cause burnout as Chang (2009) highlighted and Cunningham (1982). The highest predictor of burnout was curricular and

extra-curricular stress which supports Timms et al. (2007) study in which teachers in Queensland workloads were the major source of dissatisfaction with their work environment.

7.2 Hypothesis 2

A multiple regression was performed to assess if teachers with higher levels of social support (significant other, family, friends) have lower levels of burnout. The results were not significant, the level of social support a person has from a significant other, family member or friend did not predict lower levels of burnout. This result does not support hypothesis two. This result does not support research by Russell et al. (1987), Greenglass et al. (1995) and Zhang and Zhu (2007) who identified that social support is a resource that enables people to cope with stress and that the social support outside of work may play a role in teachers being able to deal with work related stress/burnout. However, the researcher notes that it may be the case that for teachers in this research, the social support from a supervisor/principal or colleague may be a better predictor of lower levels of burnout. The scale used identified social support (significant other, family and friends) outside of the work place only, whereas Russell et al. (1987) highlighted that teachers who had supportive supervisor/ principals and received positive feedback were less vulnerable to burnout. Greenglass et al. (1995) also stated that social support from a co-worker or a supervisor over time could contribute to lower levels of burnout in teachers. Further research is recommended looking at the role of social support from a supervisor or colleague in reducing burnout.

7.3 Hypothesis 3

A linear regression was performed to assess if teachers with higher levels of physical activity have lower levels of burnout. The results indicated a significant result, a negative relationship was established between the two variables which indicates that the more physical activity teachers partook in, the lower their levels of burnout. This result supports hypothesis

three. It supports research firstly by Sane et al. (2012) who also found a significant inverse relationship between physical activity and burnout in academic members of Daregaz Universities. The result also supports research by Naczenski et al. (2017) who's findings suggest that physical activity constitutes a valuable medium to combat burnout and that regular physical activity enables a psychological detachment from work which in turn reduces the risk of burnout. Similarly, Carson et al. (2010) found that physical activity has an important role in preventing against negative stress responses by individuals. The results indicate how important physical activity is for teachers in reducing levels of stress and burnout as well as their overall physical health.

7.4 Hypothesis 4

A linear regression was performed to assess if there is a significant relationship between age and burnout in primary school teachers. The results indicated a significant result, a negative relationship was identified between the two variables which indicates that older teachers have lower levels of burnout. This result supports hypothesis four. As noted, the literature on the age of teachers and levels of burnout is mixed. This result supports research by Antoniou et al. (2006), Russell et al. (1987) and Friedman and Faber (1992) who all found that younger teachers had higher levels of stress and higher levels of burnout compared to older teachers who had lower levels of stress and burnout. However, Zabel and Zabel (2001) in their research found that age was not as significantly related to burnout as it was in the past but that older teachers did find more personal accomplishment in their work, whereas the results in this research indicated there was a significant relationship between age and burnout of the primary teachers who took part.

7.5 Hypothesis 5

A linear regression was performed to assess if there is a significant relationship between years of service and burnout in primary school teachers. The results were not significant. The years of service the teachers in this research have was not a predictor of lower levels of burnout. This result does not support hypothesis 5. This result supports research by Malik, Mueller and Meinke (1991) who also found that teaching experience did not account for a significant degree of variance in occupational stress in elementary and secondary public-school teachers in Ohio.

7.6 Strengths and Limitations of the Study

There are both strengths and limitations to the current research. Beginning with the strengths, this study set out to further research in the area of burnout in primary school teachers in Ireland. There are many studies which explore burnout and the variables that affect levels of burnout in teachers however there is a lack of research conducted in Ireland in relation to this topic. This research adds an Irish context to the phenomenon of burnout in teachers. It identifies that burnout is evident in Irish primary school teachers and it also highlights how physical activity plays a key role in reducing levels of burnout in teachers. This research provides relevant information to everyone involved in the primary school sector as well as The Department of Education who oversee education. The key stressors which affect burnout were identified which were curricular and extra-curricular stress along with classroom management stress. With the information provided in the research, primary teachers and The Department of Education can clearly see what causes the most stress to the profession along with how this stress and burnout can be reduced.

Another strength of the research is that it is data focused. The data reflects a large sample of Irish based teachers, of mixed ages, differing years of service and differing pupil

teacher ratio thus providing a full data set. The sample size of N=103 also was a strength of this research as it allowed for inferential testing such as multiple regression.

While there are several strengths to this study there are also some limitations which need to be noted. There was gender imbalance in the data, the sample consisted of 101 females and 2 males. As the data set consisted of mainly females, future research in the area would benefit from more male participants, the reason being that research conducted by Antoniou et al. (2006) found that gender had an effect on stress and burnout and Antoniou et al. (2013) found that female teachers reported significantly higher levels of occupational stress than male teachers. A more proportionate gender balance would seek to investigate and either support or be contrary to findings found by Antoniou et al. (2006) and Antoniou et al. (2013). However, it needs to be noted that primary school teaching in Ireland predominately consists of females. The Central Statistics Office noted that in 2015 women accounted for 87% of teachers at primary level in Ireland (Central Statistics Office, 2017) hence the probably reason for the gender imbalance in the current study.

Another limitation of this study is that when running the internal reliability for the data, the Cronbach alphas of some of the subscales were under normal reliability. The Leisure Time Exercise questionnaire had a reliability score of $\alpha = .61$ and in the Teachers Occupational Stress Questionnaire, the subscale working conditions stress had a reliability score of $\alpha = .62$ both of which were unfavourable. The researcher would have preferred a value of .7 or above in reliability.

7.7 Future Research

Further research in this area could be conducted using both quantitative and qualitative data analysis as the qualitative analysis could provide rich and deep data which would add to the strength of a study of this kind in essence combining rich and deep data with data that can be measured.

As this study consisted mainly of female teachers, future research would benefit from a study with more male participants so as to assess if gender differences would be evident similar to the gender differences found in Antoniou et al. (2006) (2013).

Social support (subscales: significant other, family and friends) was not found to be a predictor of lower levels of burnout in this research. However future research would benefit from looking at whether social support from colleagues and or supervisors in a teaching setting, that is the principal or vice-principal are predictors of lower levels of burnout in teachers.

7.8 Implications and Applications

This research looked at levels of burnout in primary school teachers in Ireland and it was found that teacher related stress was a predictor of burnout. Specifically, curricular and extra-curricular stress along with classroom management stress were significant predictors of burnout. This should be a concern for the teaching profession in Ireland and also for the Department of Education and the Teaching Council of Ireland who manage the profession of teachers and education in Ireland. The primary curriculum in Ireland is undergoing change, in September of 2019; The Primary Language Curriculum for all stages in primary schools from junior infants to sixth class commenced (National Council for Curriculum and Assessment, 2019). Also, the National Council for Curriculum and Assessment published a new draft Primary School Curriculum framework on the 25th of February 2020 (National Council for

Curriculum and Assessment, 2020). These changes to the curriculum may further add to the current stress that teachers already face in this area. With that, adequate professional development courses should be provided to all teachers to ensure that the changes being implemented and future possible changes to the curriculum do not add anymore unnecessary stress.

At the moment the amount of paperwork teachers complete is immense, teachers need to almost over plan and add in superfluous information which impacts on their stress levels. This planning is also done outside of school time. Teacher's time would be better spent preparing resources for their lessons instead of the excessive paperwork expected of them by The Inspectorate body of the Department of Education.

Another important finding from this research which has implications for all teachers and the bodies that oversee education and teaching in Ireland is that higher levels of physical activity significantly predicted lower levels of burnout. While the benefits of exercise to one's physical and mental health is widely known, the fact that it was found to be significant in research applicable to Irish teachers may make teachers and the relevant education bodies in Ireland more aware of this and encourage teachers to engage in physical activity to reduce stress and burnout. It is an inexpensive tool to aid ones physical and mental health.

7.9 Conclusion

In conclusion this research identified a significant relationship between teacher's occupational stress and burnout namely curricular and extra-curricular stress and classroom management stress. The research also identified a significant relationship between physical activity and burnout and found that participants with higher levels of physical activity have lower levels of burnout which supports the many pieces of literature on the benefits of physical activity to physical and mental health. The age of teachers also had a significant relationship with burnout too. The relevant bodies associated with primary teaching in Ireland, the Department of Education and the Teaching Council, need to encourage teachers to engage in physical activity, as well as ensuring they receive adequate professional development courses in relation to any future changes to the curriculum so as to help reduce feelings of stress and burnout amongst teachers.

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Appendices

Appendix A - Information Sheet

My name is Paula Fitzgerald and I am conducting research in the Department of Psychology in Dublin Business School that explores burnout in primary school teachers. This research is being conducted as part of my studies and will be submitted for examination.

You are invited to take part in this study and participation involves completing the attached anonymous survey. While the questionnaire asks some questions that might cause some minor negative feelings, it has been used widely in research. If any of the questions do raise difficult feelings for you, contact information for support services are included on the final page.

Participation is completely voluntary and so you are not obliged to take part.

Participation is anonymous and confidential. Thus, responses cannot be attributed to any one participant. For this reason, it will not be possible to withdraw from participation after you have submitted your answers.

The questionnaires will be securely stored and data from the surveys will be stored on a password protected computer.

It is important that you understand that by completing and submitting the questionnaire that you are consenting to participate in the study.

Should you require any further information about the research I, Paula Fitzgerald can be contacted at 10394047@mydbs.ie. My supervisor Dr Pauline Hyland can be contacted at pauline.hyland@dbs.ie.

Thank you for taking the time to complete this questionnaire.

Appendix B - Debrief Sheet

Thank you for your answers. Your responses have been recorded.

This research is being conducted to look at the levels of burnout in primary school teachers in Ireland. Burnout in teachers has been researched in many countries but little research has been completed from an Irish view point. It will look at the relationship between burnout and teachers occupational stress, burnout and perceived social support and burnout and physical activity. It hopes to identify relationships between the variables and burnout.

From conducting this research, it is hoped that the results may help inform government bodies involved in education, as well as teachers' organisations to look at the levels of burnout in primary teachers and what factors/variables influence the level of burnout teachers experience and try and implement strategies to reduce the levels.

If you feel that answering this questionnaire has raised some issues for you or any negative emotional effects, please consider contacting some of the support services listed below, or speak to a friend, family member or professional.

Aware contact details:

The Aware Support Line Freephone 1800 80 48 48

Available Monday – Sunday, 10am to 10pm

Email for support at supportmail@aware.ie

www.aware.ie

Samaritans contact details:

Call 116 123

Available 24 hours a day, 365 days a year. Free to call

Email; jo@samaritans.ie

www.samaritans.org

Should you require any further information I, Paula Fitzgerald can be contact at [redacted]@mydbs.ie

Again, thank you for taking the time to complete this questionnaire.

Appendix C - Demographic Questions

1. Do you consent to taking part in this research?
   - ○ Yes
   - ○ No
2. Gender
   - ○ Male
   - ○ Female
3. Age
4. Job Status
   - ○ Permanent
   - ○ Temporary
   - ○ Substitute
5. Job Position
   - ○ Principal
   - ○ Mainstream class teacher
   - ○ Learning support/resource teacher
6. Years of service
7. How many children are you currently teaching?
8. If you are a mainstream class teacher, are you teaching a multi-grade or a single-grade class?
   - ○ Multi-grade class
   - ○ Single-grade class
9. Do you currently have any children with special needs in your class/group?
   - ○ Yes

- ○ No

10. If so, how many special need children are you teaching?

11. If your answer to Q.9 was yes, do you currently have SNA support?

- ○ Yes
- ○ No

Appendix D - Oldenburg Burnout Inventory

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement by circling one of the following options.

SD = **Strongly Disagree**. D = **Disagree.** A= **Agree.** SA = **Strongly Agree**.

1.	I always find new and interesting aspects in my work.	SD	D	A	SA
2.	Usually, I can manage the amount of my work well.	SD	D	A	SA
3.	It happens more and more often that I talk about my work in a negative way.	SD	D	A	SA
4.	After work, I tend to need more time than in the past in order to relax and feel better.	SD	D	A	SA
5.	I can tolerate the pressure of my work very well.	SD	D	A	SA
6.	Lately, I tend to think less at work and do my job almost mechanically.	SD	D	A	SA
7.	I find my work to be a positive challenge.	SD	D	A	SA
8.	During my work, I often feel emotionally drained.	SD	D	A	SA
9.	Over time, one can become disconnected from this type of work.	SD	D	A	SA
10.	After working, I have enough energy for my leisure activities.	SD	D	A	SA
11.	When I work, I usually feel energized.	SD	D	A	SA
12.	Sometimes I feel sickened by my work tasks.	SD	D	A	SA
13.	This is the only type of work that I can imagine myself doing.	SD	D	A	SA
14.	After my work, I usually feel worn out and weary.	SD	D	A	SA
15.	I feel more and more engaged in my work.	SD	D	A	SA
16.	There are days when I feel tired before I arrive at work.	SD	D	A	SA

Items are scored 1-4 from SD (strongly disagree) to SA (strongly agree).

Positively worded items are *reverse scored*. (Items 1, 2, 5, 7, 10, 11, 15.)

They are scored as follows SD = 4, D = 3, A = 2, SA = 1.

The odd items 1, 3, 5, 7, 9, 11, 13 & 15 comprise the **Disengagement** scale.

The mean score of these 8 items is calculated (remember to reverse score the positive items first, 1, 5, 7, 11 & 15). Higher total indicates greater disengagement.

The even number 2, 4, 6, 8, 10, 12, 14 & 16 are the **Exhaustion** scale. Calculate the mean of these 8 items for the Exhaustion scale (again reverse score the positively worded items 2 & 10)

Appendix E - Teachers' Occupational Stress Questionnaire

We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement by selecting one of the following options on a scale from 1 to 6, where 1. indicates it does not stress me at all, to 6. this activity stresses me very much.

1. Does not stress me at all 2 3 4 5 6. This activity stresses me very much

1. To keep quiet in class.
2. To maintain discipline and order in the classroom.
3. To work with unmotivated students.
4. To work with agitated or unruly children.
5. Carrying out school duties during the time dedicated to my family (e.g. to read and mark offhand papers at home).
6. To teach in noisy conditions (e.g. too much noise outside in the street).
7. To teach in unsuitable thermal conditions (e.g. too cold).
8. To supervise students during breaks.
9. To work with papers or documents related to administrative activities.
10. To make trips with students.
11. To prepare students for competitions outside of school hours.
12. To prepare students for competitions taking place during school hours.
13. To participate with pupils in contests.
14. To work with too heterogeneous classes (different cognitive levels).
15. To have to reckon with my colleagues.
16. To have inspections or evaluative situations in the classroom.

17. To help a child with poor academic results to progress.
18. To permanently pursue progress in students' acquisitions.
19. To pay equal attention to each student.
20. To maintain a good mood for each student in the classroom.

Subscale 1: Curricular and extra- curricular activity stress (5, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19)

A minimum score of 11 indicates low levels of curricular and extra-curricular stress to a maximum score of 66 which indicates high levels of stress.

Subscale 2: Classroom management stress (1, 2, 3, 4, 8, 20)

A minimum score of 6 indicates low levels of classroom management stress to a maximum score of 36 indicates high levels of stress.

Subscale 3: Working conditions stress (6, 7, 9)

A minimum score of 3 indicates low levels of working condition stress to a maximum score of 18 which indicates high levels of stress.

Appendix F - Multidimensional Scale of Perceived Social Support

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement by circling one of the following options.

Circle the "1" if you **Very Strongly Disagree**

Circle the "2" if you **Strongly Disagree**

Circle the "3" if you **Mildly Disagree**

Circle the "4" if you are **Neutral**

Circle the "5" if you **Mildly Agree**

Circle the "6" if you **Strongly Agree**

Circle the "7" if you **Very Strongly Agree**

1	There is a special person who is around when I am in need.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
2	There is a special person with whom I can share my joys and sorrows.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
3	My family really tries to help me.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
4	I get the emotional help and support I need from my family.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
5	I have a special person who is a real source of comfort to me.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6	My friends really try to help me.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7	I can count on my friends when things go wrong.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8	I can talk about my problems with my family.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
9	I have friends with whom I can share my joys and sorrows.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
10	There is a special person in my life who cares about my feelings.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

11	My family is willing to help me make decisions.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
12	I can talk about my problems with my friends.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Scoring Information

To calculate mean scores:

Significant Other Subscale : Sum across items 1, 2, 5 & 10, then divide by 4.

Family Subscale: Sum across items 3, 4, 8 &11, then divide by 4.

Friends Subscale: Sum across items 6, 7, 9 &12, then divide by 4.

Total Scale: Sum across all 12 items, then divide by 12.

Appendix G - Godin Leisure Time Questionnaire

1. During a typical 7-Day period (a week), how many times on the average do you do the following kinds of exercise for more than 15 minutes during your free time (write on each line the appropriate number).

Times Per Week

a) STRENUOUS EXERCISE (HEART BEATS RAPIDLY) _____

(e.g., running, jogging, hockey, football, soccer, squash, basketball, cross country skiing, judo, roller skating, vigorous swimming, vigorous long distance bicycling)

b) MODERATE EXERCISE (NOT EXHAUSTING) _____

(e.g., fast walking, baseball, tennis, easy bicycling, volleyball, badminton, easy swimming, alpine skiing, popular and folk dancing)

c) MILD EXERCISE (MINIMAL EFFORT) _____

(e.g., yoga, archery, fishing from river bank, bowling, horseshoes, golf, snow-mobiling, easy walking)

INSTRUCTIONS

In this excerpt from the Godin Leisure-Time Exercise Questionnaire, the individual is asked to complete a self-explanatory, brief four-item query of usual leisure-time exercise habits.

CALCULATIONS For the first question, weekly frequencies of strenuous, moderate, and light activities are multiplied by nine, five, and three, respectively. Total weekly leisure activity is calculated in arbitrary units by summing the products of the separate components, as shown in the following formula:

Weekly leisure activity score = (9 × Strenuous) + (5 × Moderate) + (3 × Light)

The second question is used to calculate the frequency of weekly leisure-time activities pursued “long enough to work up a sweat“ (see questionnaire).

EXAMPLE

Strenuous = 3 times/wk

Moderate = 6 times/wk

Light = 14 times/wk

Total leisure activity score = (9 × 3) + (5 × 6) + (3 × 14) = 27 + 30 + 42 = 99