An Investigation into Shift Work and Roster Schedule on Sleep, Social Isolation and Stress in the Irish Hospitality Industry

Sonja Collins

X14305181

Masters of Arts in Human Resource Management

The National College of Ireland

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Abstract

Objectives

Empirical research has indicated shift work to attain negative effects on sleep, social isolation, stress and other factors. However, albeit a vast amount of literature has been conducted in this field there were still aspects to be explored. In light of this the main objective of this study was to investigate if the negative impacts of shift work would be identifiable if conducted within the Irish hospitality industry as all previous research was conducted on the nursing population in America. A secondary objective sought to fill a gap in the literature as to date no research has considered the impact that roster schedule may have on sleep, stress and social isolation. The researcher set out to explore these novel aspects and add to the literature.

Method

This study was a mixed method, between groups cross sectional design. The sample was of opportunistic nature consisting of 109 hotel employees working both fixed and shift work schedules in The Republic of Ireland. Various measures were implemented to analyse participants. The Bergan shift work sleep scale, The work non-work interference scale and the perceived stress scale. Additionally, 9 participants took part in a semi-structured interview to investigate their perceptions of shift work and roster schedule. The data within this study was analysed through two-way ANOVA, one-way ANOVA and thematic approach.

Results

Two-way ANOVAS indicated those who worked a fixed work week reported greater levels of sleep, social isolation and stress than their shift work counterparts. Additionally, the one-way ANOVAS indicated the fixed roster group reported greater levels of sleep, social isolation and stress than any other roster schedule. Finally, the qualitative analysis indicated that the individuals reported immense levels of social isolation and stress as a result of shift work and roster schedule. Additionally, participants reported other negative effects of shift work and roster schedule on their health such as lack of exercise and poor diet.

Conclusions

In conclusion, the quantitative analysis indicated fixed workers and the fixed roster group to report greater levels of sleep, social isolation and stress. However, in contrast the qualitative analysis clearly indicated shift workers to experience detriments to their lives resulting from shift work and short roster schedule. However, upon replication of this study a larger sample size must be obtained as this may have impacted the results. Additionally, qualitative analysis should be conducted on both fixed and shift workers to enable researchers to compare their responses.

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TABLE OF CONTENTS

INTRODUCTION

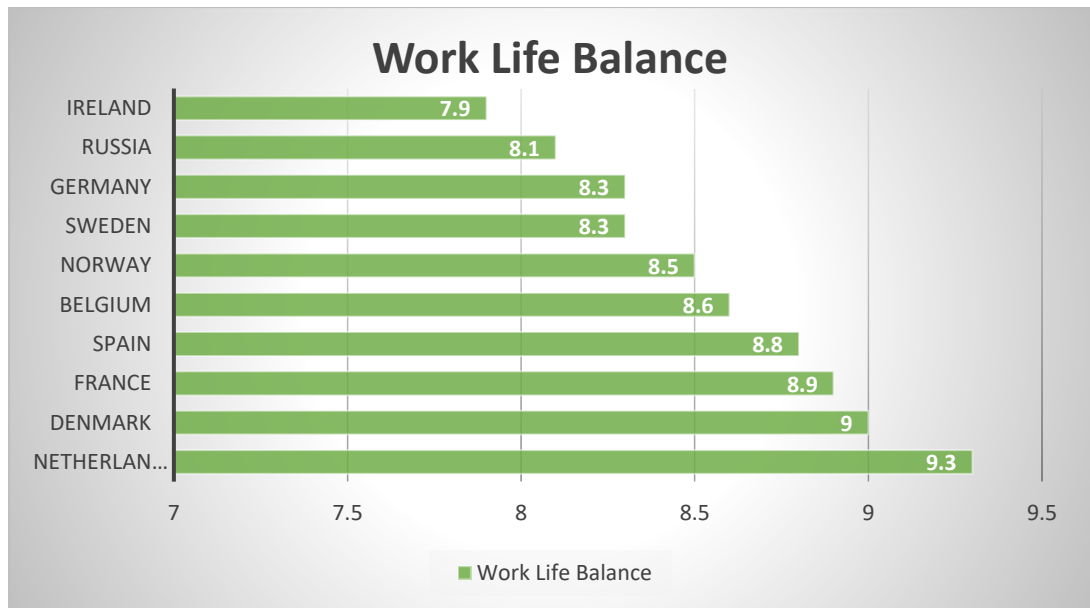## *Definition of Work Life Balance*

The concept of work-life balance is fundamentally subjective with varying definitions. Work-life balance has often been described as the intention one has, to make time for both work responsibilities and personal responsibilities (Munn, Rocco, Bowman and Van Loo, 2011). In essence, time must be allocated to each aspect of life in order to achieve this balance. However, this definition is too simplistic, indicating a clear-cut line between one's work and personal responsibilities which is not realistic as people differ and so do their responsibilities (White, Hill, McGovern, Mills and Smeaton, 2003). Therefore, it is reasonable to state that lines between responsibilities may blur.

Additionally, due to individual differences it cannot be exclusively said that to achieve work-life balance one must allocate an even number of hours to both personal and work-life responsibilities. Rather it is a subjective concept with various determents, such as work, family, personal and the social environment all possessing varying levels of impact on one's work-life balance. Regarding these one must attempt to balance their various responsibilities within these determents in order to achieve a balance and reduce work life conflict (Delecta, 2011). Work life conflict occurs when one's family responsibilities and work responsibilities are incompatible. This results in individuals being unable to balance all responsibilities at home and at work. This inability to balance responsibilities incites both psychological feelings of stress (Heckerson and Laser, 2006), physiological

symptoms such as sleep deprivation (Picher, Lambert and Huffcutt, 2000) and reduced performance (Burdzinksa and Ruthowska, 2015) due to the dissonance and confliction caused between the various roles one possesses. For example, their role as a parent may cause conflict with their role as an employee in terms of working overtime not always being possible.

Importance of Work Life Balance in the Workplace

In light of the definitions above, it is evident that work-life balance is a complex phenomenon, capturing the attention of the media and employers alike. Various news outlets have identified the importance of work-life balance to ensure employees remain healthy and reduce negative psychological and physiological symptoms (RTE, 2018; The Independent, 2014). Additionally, identifying the importance of a work-life balance from an employer's perspective because not only does it reduce health and safety risks but also, it increases performance. According to the OECD (2017) work-life balance and overall health are negatively impacted through working long hours. The OECD conduct annual surveys on all OECD member countries in order to measure their work life balance. From the graph below it can be seen that Ireland score quite well ranking 10/38 countries. However, there are still individuals within this population working long hours.

Work Life Balance

Country	Work Life Balance
IRELAND	7.9
RUSSIA	8.1
GERMANY	8.3
SWEDEN	8.3
NORWAY	8.5
BELGIUM	8.6
SPAIN	8.8
FRANCE	8.9
DENMARK	9
NETHERLAN…	9.3

■ Work Life Balance

Source: OECD

**According to the OECD these statistics scored 0-10 with 10 being the most favourable.

Results are based upon working hours, leisure time, personal time and gender equality**

Similarly, Lockwood (2003) identified that 45% of men and 50% of women would refuse promotions if it resulted in an increase in working hours. In support, True Careers (2002) conducted a work life balance survey on participants working shift work in which they discovered that 70% of respondents did not have work life balance, thus resulting in heightened stress levels. As a result of increased stress levels this may lead to poor employee morale, productivity and retention. It is important for employers to control this as poor productivity will inhibit the growth of the organisation. Poor productivity has the following symptoms which inhibit the

growth of the organisation; absenteeism, employee burnout, tardiness and even organisational sabotage (Lockwood, 2003). Likewise, Hughes and Bozionelos (2007) conducted semi-structured interviews on 20 male bus drivers. The participants concluded that as a result of their poor work life balance it led to them being unproductive and absenteeism albeit they weren't sick. In light of this it indicates that there is an importance for employers to create work life balance in order to improve employee productivity, morale and retention.

Managements Solution to increase Work Life Balance

As a result of the watching eyes of the media, it is paramount for employers to find a solution to increase work-life balance (The Independent, 2014). Management attempt this by implementing shift work in order to increase flexibility, thus improving work life balance (Bambra, Whitehead, Sowden, Akers and Petticrew, 2008). In support of this Sweet, Pitt-Catsouphes, Besen and Golden (2014) conducted a study on 545 American employees. Within their study they discovered that flexible work arrangements foster an atmosphere of productivity and increased morale. Likewise, McMenamin (2007) conducted a review in which it was discovered that fostering these flexible work schedule improves employee's ability to balance work and home responsibilities and time manage better. This in turn leads to a boost in morale and productivity.

Significance for the current study

As research has shown above, work life balance is important to produce a productive work force with high employee morale. Additionally, research has indicated to implement shift work to boost morale as it fosters and environment of

flexibility (Sweet, Pitt-Castouphes, Besen and Golden, 2014). However, as a result of economic and technical advancements, working hours are no longer a limit with the necessity for industries to operate twenty-four hours a day. Therefore, there is a requirement for shift work not an added benefit to employees (McMenamin, 2007). Supporting this, a working conditions survey created by the EU (2000) discovered that a mere 24% of the employed population work the traditional work week. One industry which is known for its shift work is the hospitality industry. The hospitality industry is often characterised in literature by its non-standard, varying work arrangements, long hours, changing environment and low wages (Benhardt, Dresser and Hatton, 2003). Research has indicated how working long hours doing manual labour with few rest breaks can often lead to fatigue (Wallace, 2003) and a reduction of work life balance. Therefore, study aims to determine the effect of shift work on both psychological factors such as stress and social isolation and physiological factors such as sleep within the Irish hospitality industry. It aims to specifically investigate the Irish hospitality industry as it has yet to be investigated by research. Additionally, the hospitality industry earns itself a tough name therefore the researcher is intrigued to discover if negative effects will be discovered in contrast to research above.

Research Aims

The researcher conducted this study with the aim to investigate the negative effects of shift work in the Irish hospitality industry in contrast to previous research. The researcher also aimed to achieve an insight into the perceptions of individuals who work shift work. In light of conducting this study the researcher aims to

produce insightful practical and research implications regarding work life balance and shift work / roster schedule for management and scholars alike.

Research Objectives

This study has multiple objectives. To investigate the impact of:

- shift typology (fixed, evening, night, varied) on sleep.

- shift typology on social isolation.

- shift work typology on stress.

- roster schedule on sleep

- roster schedule on social isolation

- roster schedule on stress

- the perceptions of participants regarding shift work and roster schedule in terms of sleep, stress and social isolation

LITERATURE REVIEW

What is Work Life Balance

As previously mentioned work life balance has a variety of definitions in which different aspects are important to different people. Lockwood (2003) however concludes that when individuals discuss work life balance they are referring to one or more of the following;

Work / life: Lockwood believes when it is from the employee's perspective. In which there is an attempt to balance work and home responsibilities

Work / life balance: Lockwood believes when it is from the employer's perspective they attempt to create a supportive atmosphere for all employees.

Work / family culture: Lockwood believes this refers to an organisation understanding that employees need flexibility in order to attain to family responsibilities as well as work.

Evidently, it can be seen that work life balance is a complex, subjective phenomenon which is specific dependent on the individual. As mentioned previously work life balance is important to boost morale and productivity amongst employees (Hughes and Bozionelos, 2007). In light of this it is necessary for management to improve work life balance to reduce absenteeism, unproductivity and remain healthy both psychologically and physiologically (RTE, 2018). As mentioned above it is vital for management to improve work life balance in order to achieve the best results out of their employees. One method they have been

seen to do it implement shift work (Bambra, Whitehead, Sowden, Akers and Petticrew, 2008).

Benefits of shift work

As mentioned above, management can be seen to implement shift work in an attempt to improve work life balance and flexibility. An abundance of research has been conducted indicating shift work to be beneficial to employees work life balance. Specifically, research has shown a compressed work week (a work week consisting of four 10 hour shifts or three 12-hour shifts) to have positive effects by prompting greater levels of work life balance (Bambra, Whitehead, Sowden, Akers and Petticrew, 2008) and lower levels of fatigue (Pearsall, 2012) resulting from a shorter work week. Additionally, flexibility in shift work that is supported by management increases work life balance and reduces stress (Sweet, Pitt-Catsouphes, Besen and Golden, 2014; Beers, 2000) along with improving loyalty and morale amongst workers (McMenamin, 2007). Employees are also willing to work varying shifts through the night as a means of extra financial income. This is as a result of employers offering shift allowance for those required to work unsociable hours (Oexman, Knotts and Koch, 2002).

 Evidently, it is clear that shift work does have some positive impacts if supported by management. Concluding that if there is support from the organisation towards an employee's family responsibilities they will be more inclined to have higher productivity and greater work life balance (Sweet, Pitt-Catsouphes, Besen and Golden, 2014). Organisations can be seen doing this by offering family friendly policies that allow flexibility in their hours (Lockwood, 2003). Lambert (2000)

conducted a study to offer an insight into why productivity and work life balance are improved when flexibility is supported by management. The study found employers who directly support employees in terms of work life balance will receive what is known as the social exchange theory. The social exchange theory involves employees feeling the need to work hard for the employer in return for support and a caring work environment. However, research has indicated that this flexibility in work hours needs to be implemented for all employees in order to improve their productivity and increase their work life balance (Sturges and Guest, 2004) as younger generations place higher value on work life balance than those of older generations (Smola and Sutton, 2002). Therefore, it must be individual specific. Evidently, shift work is continuously growing, however little if any consideration is given to the negative effects it has on individuals.

Pitfalls of Shift Work

As a result of technological and economic advancement it has become essential for organisations to operate 24-hours a day, 7 days a week (Costa, 2003). Therefore, in contrast to research previously mentioned shift work is not solely implemented for the employee's benefit. Rather, in reality it is reasonable to state that employees have very little to do with the choice of shifts and hours rather, they are given required hours of work by management. In contrast to research above, it can be said that employers introduce shift work as a necessity to sustain a competitive advantage within their industry. Making shift work a means of survival to organisations as opposed to an added bonus to employees (Beers, 2000). Numerous studies have been conducted highlighting the harmful effects shift work

attains on one's health as a result of inconsistency with shifts. Effects include the inability to exercise leading to poor food choices resulting in obesity (Bushnell, Colombi, Caruso and Tak, 2010). In support of this, Kivimaki, Kuisma, Virtanen and Elovainio (2001) conducted a study on individuals working shift work and those who never worked shift work. The study analysed employees in terms of their weight and overall health habits. Results concluded those working shift work had higher levels of obesity and had increased alcohol and tobacco consumption compared to those who did not work shift work. This is as a result of inconsistency of shifts. In light of this, research has indicated how this lack of flexibility and decision-making process has a negative impact on employees thus the overwhelming negative effects of shift work greatly outweigh the positives (Taylor, 2014).

Shift Work and Sleep

Sleep is an imperative factor for all species. Sleep is necessary to maintain health and overall wellness (Ellenbogen, 2005). Lack of sleep has often been linked to poor cognition, accidents, fatigue and other serious health concerns (Alhola and Polo-Kantola, 2007). Within the human biological system exists what is known as a circadian rhythm. A circadian rhythm also known as the internal body clock is a 24-hour oscillation impacted by external environmental cues (zeitgebers) such as light and dark. The main purpose of a circadian rhythm is to control various biological functions such as sleep (Papagiannakopoulos, Bauer, Davidson, Heimann, Subbaraj, Bhutkar, Bartlebaugh, Vander Heiden and Jacks, 2016). The environmental cues indicate when we are supposed to be asleep and awake.

However, as previously mentioned in the current world of work there is a growing necessity to become a part of the 24-hour climate. Resulting in employees sleeping less and working more (Costa, 2003). Similarly, employees required to work shift work sleep at irregular times as a result they are out of sync with their circadian rhythm thus experience poorer sleep quality (Knauth, 2006). Additionally, Oexman and colleagues (2002) discovered that as a result of shift workers working random time they cannot follow the cues (night and light) to control their circadian rhythm. As a result of this 24-hour climate there is a huge importance placed upon shift work.

An abundance of research has been conducted investigating shift works effect on sleep. The main premise of shift work is working shifts varying between morning, noon and night. As a result of this plentiful researchers have conducted research in order to determine the impact of working shift work on one's quality and length of sleep. Research has been conducted in which it has shown that shift work, particularly night shift work has a negative effect on the bodies' circadian rhythm, disrupting the bodies' daily functions which in turn may lead to a spike in heart rate, feelings of fatigue and jet lag (Picher, Lambert and Huffcutt, 2000; Pinel, 2011) and a reduced amount of time sleeping (Bryan, 2011). In support of this Ruggiero (2003) conducted a study on nurses required to work shift work and those required to work day shifts. The study discovered those required to work shift work reported far greater levels of fatigue than their day shift counterparts. As a result of increased levels of fatigue there is an increase in work place accidents (Akerstedt, 2003). Supporting this, Caruso (2014) conducted a study on Nurses required to

work shift work. Results concluded shift work and long hours result in fatigue which leads to harmful patient errors and a reduction in their performance.

 In light of this, it is important for management to attempt to reduce the impact of shift work by applying various methods. One method management implement is the use of compressed work weeks. Research has been conducted in which results indicate that compressed work weeks improve sleep (Dall'Ora, Ball, Recio-Saucedo and Griffiths, 2016; Johnson and Sharit, 2001) by providing longer days away from work. Pearsall (2012) conducted a study to investigate the impact of compressed work weeks on employee's sleep. Three different work schedules were analysed; 5 days working 8-hour shifts, 4 days working 10 hour shifts or 3 days one week and 4 the following week with 12-hour shifts. Results concluded those working 10-hour shifts reported higher levels of sleep than those working either of the other shift types. Results also indicated participants in the 12 hours shift reported the least amount of sleep. Therefore, in contradiction to research mentioned above.

As previously mentioned, the main premise of shift work is to work shifts varying between morning, noon and night. In light of this, it is reasonable to suggest an individual's circadian rhythm will be out of sorts as they partake in both phase delay and phase advance (Akerstadt, 2003) thus their circadian rhythm cannot adjust to the constant change in wakefulness time. A phase delay refers to changing the employees current work schedule to one that begins later in the day (Driscoll, Grustein and Rogers, 2007). Whereas, a phase advance in contrast refers to changing one's current schedule to one beginning earlier in the day. As a result, the current study aims to further explore the impact of varying degrees of shift work on

sleep as currently there is limited research in the area of the Irish Hospitality Industry with the majority of research conducted on Nurses who work a compressed work week whereas within the hospitality industry compressed shifts are not the norm. Therefore, results from previous studies cannot be directly generalised to the Irish Hospitality Industry.

Shift Work and Social Isolation

As previously mentioned within the hospitality industry it is paramount for employees to work various rotating shifts with little to no control (Chiang, 2010; Demerouti, Geurts, Bakker and Euwema, 2004). As a result, research has indicated the necessity to work rotating shifts with little knowledge of days off results in difficulty maintaining a social life in comparison to traditional counterparts (European Foundation, 2000; Brand, Hermann, Muheim, Beck and Holsboer-Trachsler, 2008). In support of this Root and Wooten (2008) conducted a study on Fathers working shift work in the hospitality industry. Results indicated participants reported increased levels of missing as a result of their work schedule being immensely alternative to those of the traditional 9-5 work week. Giving them limited flexibility along with the inability to plan their personal life responsibilities. This study however, focuses solely on individuals with children. Therefore, results may vary if the study is conducted on both parents and non-parents along with full time or part time employees. The current study aims to control for this confounding variable by considering all types of workers within the workforce.

As previously mentioned management implement compressed work weeks to improve sleep by increasing the number of days off one has (Dall'Ora, Ball, Recio-

Saucedo and Griffiths, 2016) allowing for additional time to rejuvenate. Likewise, Johnson and Sharit (2001) found individuals working compressed work weeks report longer family time as a result of fewer days in work. However, although there is an increase in days off individuals have a reduced amount of time during the week resulting from longer hours spent in work leading to social isolation (Bendak, 2003). Similarly, Jensen, Larsen and Thomsen (2017) concluded those working shift work reported more often than not the necessity to decline invitations to social activities with family and friends outside of work hours. As a result, participants reported feelings of social isolation. However, this study was conducted on nurses. This may have different results to a study conducted within the hospitality industry as nurses are on call as opposed to the hospitality industry.

Likewise, Costa (2003) discovered that individuals working shift work generally miss social events as a result of being out of phase with society. This is as a result of social events being held during sociable times when one may be working. Similarly, Albertsen, Rafnsdottir, Grimsmo, Tomasson and Kauppinen (2008) conducted a study in which they discovered that as a result of long varied hours individuals experience increased levels of fatigue. This fatigue resulted in increased mood swings and social conflict. Evidently, shift work negatively impacts one's social life. Additionally, research has concluded that not only are the individuals working shift work affected but also their family and friends. Root and Wooten (2008) conducted a study on parents working shift work. They discovered not only are the parents working shift work affected in terms of their social isolation and inability to partake in family activities but also their children. Furthermore, Strazdins, Clements, Korda, Broom and D'Souza (2004) support this as they found children with parents who

work shift work are more inclined to have social and emotional p asroblems a result of poor family relationships. In support of this Presser (2000) discovered those who work shift work reported greater levels of marriage and relationship instability as a result on the inability to spend quality time together.

In light of the research above shift work has been shown to negatively impact one's social life. However, all of these studies were conducted within either the American/Canadian population or within the hospitality sector. As a result, the current study aims to address this gap by conducting research within the Irish hospitality industry as it has yet to be done and may offer varied results to that of the nursing sector and the American population.

Shift Work and Stress

An immense amount of research has been conducted indicating stress within the work place negatively effects one's psychological and physiological wellbeing (Smith, 2003). In light of this it is paramount for employers to aim to reduce this stress that employees may experience within the workplace. As a result, plentiful research has been conducted to investigate the effect of shift work on stress. Previous research as mentioned above indicated that shift work attains positive effects when supported by management (Sweet, Pitt-Catsouphes, Bensen and Golden, 2014; Beers, 2000). However, these studies only considered a workplace in which flexibility in shift hours is supported by management. As a result, generalising shift work as being an added extra to employees. In reality It has been shown shift work amounts as a result of economic and technological pressures (Costa, 2003)

The hospitality industry has often gained itself the title of a harsh industry, resulting from necessity of rotating shift, stress and fatigue from long hours (Chiang, 2010). In support of this statement and the research mentioned above Fenwick and Tausig (2001) conducted a study on employees who did not have flexibility in their shift. They reported increased feelings of stress as a result of work life conflict. It is reasonable to suggest that this increased feeling of stress may result from the inability to balance their responsibilities. In support of this Jamal (2004) conducted a study in analysing employees working shift work and those not working shift work in terms of burnout and overall stress. Results concluded those required to work a non-standard work week reported considerably higher levels of burnout and occupational stress than those working the fixed shift week. However, this study considered the population as a whole and did not account for at home responsibilities such as children.

Additionally, research has been conducted in which results conclude that working shift work can lead to an increase in stress levels as a result of not having adequate personal time (Brand, Hermann, Muheim, Beck and Holsboer-Trachsler, 2008; Gerber, Hartmaan, Brand, Holsboer-Trachsler and Puhse, 2010). Brand and colleagues conducted a study a study on traditional and shift work employees. Results concluded, employees required to work shift work including weekends reported increased levels of stress as opposed employees working the traditional 9-5 work week. However, this study is without limitations. The study analysed the workforce focusing solely on students. It is reasonable to suggest that this can be seen as a limitation as the increase in stress levels may result from employees attempt to balance both college and work responsibilities.

Similarly, Gerber and colleagues conducted a study investigating police officers required to work shift work and police officers working traditional work weeks. They analysed the two groups in terms of reported stress levels. Results concluded, participants required to work shift work reported higher levels of stress as opposed to those required to work a traditional 9-5 work week. However, although this study supports shift work having negative effects on stress it must be noted the sample within this study consisted solely of swiss police officers therefore results may be as a result of the profession. It is reasonable to suggest that results may vary if the study is replicated with another profession such as the hospitality industry. This can be said as the hospitality industry acquires less danger than work police officers are required to do.

As previously mentioned employers introduce alternative work schedules to offer services 24/7 to maintain competitive in this new world of work. One form of work schedule implemented is a compressed work week. As formally shown a compressed work week has indicated to have positive responses in terms of work life balance and stress reduction (Pearsall, 2012). However, Pearsall concluded in order for the compressed work week to have success, shifts cannot be longer than 10 hours. Likewise, Dall'Ora, Ball, Recio-Saucedo and Griffiths (2016) discovered that a compressed work week with shifts longer than 10 hours indicated a spike in stress levels. It is reasonable to suggest that the hospitality industry would not replicate these results as it has gained itself a harsh name as a result from its long hours (Chiang, 2010). In light of this if replicated within the hospitality industry employees may report increased levels of stress from excess hours.

17

As mentioned above plentiful research has indicated that shift work impacts individuals in terms of stress, sleep and social isolation. Research has indicated how supported flexibility in shifts by management reduces levels of stress (Sweet, Pitt-Catsouphes, Bensen and Golden, 2014) as opposed to if flexibility is not supported. Additionally, the inability in flexibility in shift work leads to an increased report in social isolation (Root and Wooten, 2008). In light of this it is evident that previous research has indicated that this inability in flexibility results in stress and social isolation. However, these studies only account for flexibility regarding how many hours or days an individual works. None of the studies account for rosters. More specifically, the roster schedule. This is a novel concept derived by the researcher referring to how far in advance one receives their roster prior to the commencement of their work week. It is reasonable to suggest that this is a beneficial research area to explore as previous research has indicated that inflexible work practices lead to stress and social isolation, therefore receiving a roster too close to the work week may mirror similar results. This can be suggested as if one receives a roster too close to the commencement of their work week there may be a reduced chance of swapping shifts. This is a common practice within the hospitality industry. Therefore, warranting an investigation. In support of this Demerouti, Geurts, Bakker and Euwema (2004) conducted a study on Police officers. Within their study they concluded similar results to other previous research indicating shift work has negative impacts on the social life and stress of employees. From their results they inferred that the potential reason for a negative impact of shift work on stress, sleep and social isolation may result from the of

knowledge one possesses regarding their roster. In light of this they suggest it to be necessary for management to consider concept and make rosters individual specific. In light of this the current study aims to explore this novel concept.

Research Justification

Previous research presented above indicated shift work to have positive effects on individuals by considering shift work to be an added bonus by management increasing flexibility and improving work life balance (Beers, 2000). However, research has indicated that implementation of shift work rather results from the necessity to operate 24/7 in order to sustain a competitive advantage (Costa, 2003) as a result of economic and technological advancements. Thus, individuals possess little to no control of their hours. One industry this is evident in is the hospitality industry. It is essential within this industry to offer around the clock service resulting in long hours and varying shift, giving it a harsh name (Chiang, 2010).

Previous research has indicated that shift work with inflexibility attains negative effects on sleep (Alhola and Polo-Kantola, 2007), stress (Fenwick and Tausig 2001; Gerber, Hartmaan, Brand, Holsboer-Trachsler and Puhse, 2010) and social isolation (Jensen, Larsen and Thomsen, 2017). However, the majority of studies presented above were conducted within America / Canada or the United Kingdom.

Additionally, the samples are obtained from a variety of industry such as the nursing (Larsen and Thomsen, 2017; Geiger-Brown et al., 2012) and not including the Irish hospitality. As a result, conclusions from the studies cannot be directly

generalised with the Irish hospitality industry due to the confounding variables of culture and industry which may be seen to be the cause of stress, sleep and social isolation. For example, in the study conducted by Gerber and colleagues (2010) a police officer will have greater stress levels than in individual working within the hospitality industry potentially as a result of the danger element to their job.

Additionally, culture has been shown to play a huge role within research. For example, research has indicated that within some cultures such as Asian, value their work life over their private life (Hofstede, 2014) consequently they may not report the same feelings as employees within a different culture. Therefore, results may vary if conducted within the Irish hospitality industry as the Irish population have been shown to value their home and family life over that of their job (Business Culture, 2017). In light of this, this study aims to investigate if shift work will hold the same effect within the Irish hospitality industry.

Secondly due to the limitations in previous studies this current study aims to address these. Evident limitations in previous studies include the lack of consideration of the impact of shift work on all employees. This limitation can be seen in the research conducted by Root and Wooten (2008). Within their study they investigated the impact of shift work on social lives. However, their sample consisted solely of parents and full-time employees. Therefore, their research failed to account all aspects of their working population. for mothers and individuals without children which could have led to alternative results. Additionally, previous research has failed to account for both full and part time employees. Evidently, Jensen, Larsen and Thomsen (2017) conduct their study with the sample as a whole,

failing to split their sample into full and part time employees. By doing so they fail to account for the potential impact of confounding variables such as college on employee's stress levels. In light of this the current study intends to fill a gap within the literature by splitting the sample into their work status and control for such confounding variables which may impact their stress, sleep and social isolation.

Thirdly, the current study also aims to fill a gap within the literature as no research has considered the impact of roster schedule on employee social isolation, stress and sleep. The term roster schedule was derived by the researcher and refers to the amount of time an employee will receive their roster prior to the commencement of their work week. This will fill a gap within the literature as it has yet to be considered and may potentially be a confounding variable mediating the negative results of shift work. For this reason, the current study intends to investigate the impact of roster schedule on the stress, sleep and social isolation responses of employees within the hospitality industry. This current study aims to compare employees who receive their rosters at varying time points prior to the commencement of their work week. For example, <3 days, 1 week, 2 weeks or monthly or fixed thereby attempting to fill a gap within the literature. Finally, this study will also be conducted on the Irish hospitality sector which has yet to be done therefore the results may vary from previous research as culture may have an influence (Hofstede, 2014) thus also filling a gap in the literature.

Forthcoming are the research aims and hypotheses of this current study that were derived as a result of reviewing previous literature conducted within various

disciplines including psychology, biopsychology, medicine, human resource

management, hospitality and tourism and business.

Hypothesis:

This study will have three main hypotheses:

- Participants in the shift work condition will higher scores in the perceived

  stress scale than participants in the fixed work condition.

- Participants in the shift work condition will higher scores in social isolation

  (work non- work inference scale) than participants in the fixed work

  condition.

- Participants in the shift work condition will higher scores in sleep

  deprivation (Bergen shift work sleep scale) than participants in the fixed

  work condition.

Exploratory Research Questions

- To explore stress levels (perceived stress scale) between the roster

  conditions.

- To explore social isolation levels (work non-work inference scale) between

  roster schedules.

- To explore sleep disturbances (Bergen shift work sleep scale) between

  roster schedules.

METHODOLOGY

Participants:

The sample in this current study consisted of 109 participants between the ages of 18 and 58 of all nationalities, comprising of both full and part time employees from all regions within the Republic of Ireland. As this the main premise of this study was to investigate shift work within the Irish hospitality industry it was requisite that participants worked within the Irish hospitality industry. All participants were recruited from multiple hotels within Ireland. There was no exclusion age for participants as to date there are a vast majority of individuals of all ages working within the hospitality industry. As a result, it was only deemed necessary to fit into the inclusion criteria of working within the Irish hospitality industry. The rationalism behind selecting this topic and sample stems from the sheer number of individuals working shift work of some form as a result of necessity to be available 24/7. Additionally, there is plentiful research indicating the various negative effects shift work has on one's psychological and physiological being. However, upon investigation of literature, the Irish hospitality industry is not considered or investigated. Also, the concept of roster schedule – how often one receives their roster has never been considered either.

The sample was collected through convenience sampling as the researcher works within the hospitality/tourism industry and has contacts with a number of hotel owners within Ireland. The researcher sent the survey to hotel owners in all regions in the Republic of Ireland. The Researcher included an explanation of the main purpose of the study to the hotel owners along with ensuring them the survey will

not damage their image or reputation. The hotel owners distributed the survey to the HR manager who distributed it to all employees within the hotel. The employees then had the freedom to decide if they would like to participate in the study. Another method used to collect participants within the Dublin area was snowball sampling. This occurred as the researcher distributed the survey to old work colleagues in the hospitality industry who passed it on to their colleagues and friends within the industry whom the researcher did not know.

As previously mentioned the study comprised of both males (48) and females (61). Evidently, it can be seen that the sample has a slight skew towards the female sex. The mean age of the sample was ($M = 28$). All participants within this study were residents of the Republic of Ireland at the time of completion of the questionnaire. In order to mediate the effect of confounding variables on stress, sleep and social isolation the researcher asked specific demographic questions including participants educational, familial and employment status. Participants were also analysed in terms of their work status (Part time; 34, Full Time; 75). Additionally, participants were assessed in terms of the category of shift work they do (Fixed; 42, Evening; 3, Night; 5, Varied; 59). Finally, the sample were analysed in terms of their roster schedule (< 3 days; 12, 1 Week; 50, 2 Weeks; 6, 1 Month; 8, Fixed; 33). Evidently, the vast majority of the sample comprises of individuals who work either fixed or varied shifts along with the majority of participants receiving their roster 1 week in advance or it is a fixed roster.

The study comprised of two stage analysis. The first stage consists of the quantitative research. As previously mentioned, participants were collected

through convenience and snowball sampling. The second part of the study involved

qualitative research. Participants were collected through random sampling.

Participants within the interviews were a sub sample of the overall population

within this study. These participants had previously taken part in the quantitative

analysis and supplied their email to be contacted or the qualitative research. Out of

a sample of 109 participants 82 individuals supplied their email address. Out of the

82 individuals who supplied their email address to be contacted, 9 individuals were

selected through a random number generator. The researcher put all emails into an

online random number generator to randomly select 10 individuals to interview.

The researcher chose this number as it would be 10% of the overall sample

therefore giving a good representation. However, only 9 interviews were included

in the analysis due to a participant changing their mind last minute. This left the

researcher with too short notice to obtain another participant. The participants

within the interview consisted of 6 Full Time employees and 3 Part Time employees.

Within the sample for the interview it was heavily skewed towards females than

males (F = 7, M = 2)

Design:

This study operated a mixed method, cross-sectional, between groups design.

Participants were analysed within this study in terms of; employment status,

gender, shift typology and roster schedule thus making the use of a between groups

design apt. All participants were measured in terms of their perceived stress, sleep

disturbances and social isolation as a result of partaking in shift work. Additionally,

this study is of mixed methods design as both quantitative and qualitative data was

collected. Both methods were used within this study as research has indicated that although quantitative research has been shown to be far more reliable and valid than qualitative; qualitative however, allows a researcher to delve further into the thought processes of participants and obtain answers to questions a survey does not have the ability to do (Pathak, 2013). Therefore, in light of this the researcher deemed it necessary to delve further into the thought process of individuals working shift work as the factors are very subjective and measuring with quantitative alone would not give as rich of an insight.

The quantitative research consisted of various scales in order to analyse the impact of the independent variables on dependent variables. Widely used, reliable scales were used to measure the effect of shift work on sleep, stress and social isolation. Semi-structured interviews were used for the qualitative research in order to investigate employee perceptions regarding the impact of roster schedule on sleep, stress and social isolation along with gaining more of an insight into shift work on other aspects of an individual's everyday life. Within the study there were 3 hypotheses and 5 exploratory questions. The Independent variable (IV) and dependent variables for each hypothesis are as follows:

1. The IV is shift typology and the DV is sleep disturbances
2. The IV is shift typology and the DV is social isolation.
3. The IV is shift typology and the DV is stress.

Exploratory Questions

1. To investigate roster schedule and sleep disturbances
2. To investigate roster schedule and social isolation

3. To investigate roster schedule and stress

4. To investigate the individual's perceptions of working shift work on various aspects of their lives.

5. To investigate the individual's perceptions of roster schedule on various aspects of their lives.

Data collection/Measures:

In order to measure the hypotheses a variety of scales were administered through the use of Survey Monkey. Survey Monkey is a world-wide online platform allowing for easy distribution of surveys electronically through email and social media. Additionally, it allows for easy data collection of responses for the researcher to analyse.

<u>Sleep disturbances</u>

To investigate the impact of shift work on sleep disturbances the Bergen shift work sleep questionnaire (BSWSQ) was administered (Flo et al., 2012). This is a 17–item self-report scale with a Cronbach's alpha of (. 9). This Cronbach's alpha score indicates that the scale used is reliable in what it is measuring. This scale measured responses on a scale of Never = 0, Rarely = 1, Sometimes = 2, Often = 3, Always = 4. Participants also had the option to answer NA which was scored as a missing case as 999. This meant that participants scored as this were excluded from analysis. This scale measured participants answers upon working various shift types- morning/afternoon/night (please see appendix 1).

Social isolation

Social isolation refers to the degree participants miss out on personal life activities or feelings of exclusion. This study was interested in measuring this concept in terms of the impact of one's career on social isolation. Specifically, to determine if shift work and roster schedule entice feelings of social isolation. Social isolation was measured through the administration of the Work/Nonwork Interference and Enhancement Measure (WNWIEM) (Fisher, Bulger and Smith, 2009). This is a 11-item scale scored a Cronbach's alpha of (.8), indicating that this scale is a reliable measure. This scale measured the impact one's job on their personal life across a 5-point Likert scale in which answers ranged from Not at all = 0, Rarely = 1, Sometimes = 2, Often = 3, Almost Always = 4. (please see appendix 2). Items 1-6 were required to be recoded as they are negatively phrased items.

Stress

This study was interested in investigating individuals perceived stress levels and comparing them in terms of the type of shift work and roster schedule one receives. Stress was measured through the administration of the Perceived Stress Scale (Wickrama, Ralston, O'Neal, Ilich, Harris, Coccia, Young-Clark and Lemacks, 2013). This 8-item scale scored a Cronbach's alpha of (.8), indicating its reliability to measure perceived stress levels. This scale measured perceived stress across a 5-point Likert scale in which answers ranged from Never = 0; Rarely = 1, Sometimes = 2; Fairly Often = 3; Very Often = 4 (please see appendix 3). Items 1, 2, 3, 6 and 8 were required to be recoded as they are negatively phrased items.

<u>Semi-structured Interviews</u>

Semi-structured interviews were conducted to gain a greater insight into individual's perceptions of shift work and roster schedule on their everyday life. In order to assess this, participants took part in a 20 minute one to one interview with the researcher. The interview questions were obtained from a study conducted by Vitale, Varrone-Ganesh, Vu (2015) regarding shift work on nurses. The researcher adapted these questions to enable them to be more generalisable to the hospitality industry. Additionally, as the concept of roster schedule has yet to be investigated the researcher added questions regarding this to the interview (please see appendix 4).

Data Analysis:

The data analyses within this study comprised of both quantitative and qualitative analysis.

<u>Quantitative Analysis</u>

Quantitative analysis was used in order to analyse the effect of shift work and roster schedule on sleep, stress and social isolation. These variables were measured through the use of world-wide reliable scales as previously mentioned. The scales were distributed through the use of Survey Monkey and online platform that allowed the researcher to receive the results instantly and to import them onto an excel spreadsheet. In order to analyse the data, it was necessary for the researcher to recode the spreadsheet into numeric value. Upon completion the excel

spreadsheet was imported into SPSS, a statistical analysis software allowing researchers to analyse large and small volumes of data.

The first step of analysis that the researcher conducted was to recode the negatively phrased items as mentioned above. The researcher then conducted a reliability analysis on the scales in order to ensure they accurately measured what they intended to. After all scales received a Cronbach's alpha of .7 or above the researcher conducted descriptive statistics in order to gain an insight into the sample. Descriptive statistics were used to describe the sample within the study. The descriptive statistics indicated the mean, median and standard deviation of both categorical and continuous variables such as; gender, age, shift type, roster schedule, sleep, stress and social isolation.

Upon completion of descriptive statistics, the researcher conducted inferential statistics. Inferential statistics are used for the following two things. Either to investigate the relationship between two groups or to assess the difference between two groups (Means). The inferential statistics best suited to this study was to investigate a difference between groups. This can be said as the main premise of this study was to investigate a difference between shift types and roster schedules on sleep, stress and social isolation. The researcher chose to implement a two-way analysis of variance in order to investigate the difference of means whilst controlling for an interaction of an additional variable for example full time or part time. A one-way analysis of variance was conducted in order to investigate hypothesis 3-6.

<u>Qualitative</u>

As this study was of mixed methods approach it was necessary to analyse the data collected from the interviews. Semi-structured interviews were used to delve further into the individual's perceptions of shift work and roster schedule on their everyday lives. The semi-structured interviews were 20 minutes in length and had set questions. However, participants were allowed to divert from these questions in order to gain more of an insight. The researcher used open ended questions in order to inhibit one worded response.

The data collected from these interviews was analysed through a thematic approach. This refers to the researcher going through all the data with a fine-tooth comb and coding up relevant, reoccurring themes throughout all interviews. Once relevant themes were identified the researcher went back over the interviews in order to link up relevant quotes in order to clearly indicate the reoccurring themes.

Pilot Study:

A pilot study was deemed necessary within this study. It was deemed necessary as the concept of roster schedule was a novel term therefore it was unknown if participants would understand what was meant by roster schedule. A pilot study was conducted on 5 individuals who are not included in the sample of this study. The pilot study sample were required to complete the survey and give any feedback or concerns they had regarding the questions. Upon completion and analysis of the study it was apparent to the researcher that the sample did not understand what was meant by roster schedule as they all thought it meant what type of days do they work a week. In light of this the researcher amended the phrasing of the

question and asked the pilot study if they would understand the new phrasing to which they did. In doing this it gave the researcher confidence that future participants would understand the novel concept of roster schedule. A pilot study was not deemed necessary for the interviews as the participants within the interviews were a sub group from the quantitative analysis therefore they had already been exposed to the term of roster schedule.

Procedure:

The researcher used Survey Monkey, an online platform to distribute questionnaires. This online platform allows the ease of distribution for surveys. The researcher created a demographic questionnaire and input the scales to measure sleep, stress and social isolation. After this the researcher conducted the pilot study to ensure that participants would understand what was meant by roster schedule. After conducting the pilot study, it became apparent to the researcher that the term roster schedule was not understood. The Researcher amended the phrasing of the question and asked the pilot study if they now understood the new phrasing. The Researcher contacted numerous hotel owners around the Republic of Ireland via email and explained in detail the main premise of the dissertation. Upon gaining approval from the Hotel owners the survey link was distributed to them. The hotel owners distributed the link to the HR Manager which was then sent to all employees within the organisation via email.

Once participants clicked on the link to the survey they were brought to an information page in which the purpose of the survey was clearly defined. Within the information page it was clearly explained the importance of anonymity,

assuring participants that all results will be analysed at group level not individual therefore unidentifiable. Participants were also informed of a second stage to the study, the semi-structured interview. If participants wished to be considered for the interview they were informed to submit their email address and they may be potentially contacted upon random selection. At the end of the information page participants were required to give their consent if they wished to proceed with the survey.

Upon consenting participants were prompted to begin the study by completing a demographics questionnaire which included questions relating to age, gender, work status (Full Time/Part Time), shift type, roster schedule, education status and if they have children. After completing the demographics questionnaire participants took part in the Bergan shift work sleep questionnaire. The Bergan shift work sleep questionnaire is a 17-item self-report scale whereby participants were asked a series of questions based upon their patterns after various types of shifts and on time off/rest days. Participants were required to rate their agreement to the questions on a 6-point Likert scale with answers ranging from Never to Always (Please see appendix 1).

Upon completion of the Bergan shift work sleep questionnaire participants were required to complete the Work/Nonwork Interference and Enhancement Measure (WNWIEM) to answer questions based upon their work and personal life interference. This is an 11-item scale in which respondents rated their agreement to questions on a 5-point Likert scale with answers ranging from all the time to not at all (Please see appendix 2).

Upon completion of the Work/Nonwork Interference and Enhancement Measure Participants were prompted to complete the Perceived stress scale. This is 8-item scale measuring participants perceived stress level. Participants were required to rate their agreement to a series of questions regarding everyday stress. Respondents were required to answer the question on a 5-point Likert scale with answers ranging from never to very often (Please see appendix 3). Upon completion of this scale the study was completed and participants were thanked for their participation. The results were automatically accessible to the researcher through the Survey Monkey software. The quantitative data collection period began the 28th of May 2018 when the link went live and the collection process stopped the 09th July 2018 when the link was closed. Upon closing the link, the results were inputted in to IBM SPSS Statistic 24.0 where they were analysed.

The Qualitative data collection began the 23rd July 2018 and was completed by the 01st August 2018. During the qualitative analysis participants were selected through random selection from the email address they distributed. The researcher put the corresponding ID number of the participant into an online random number selector in which 10 participants were selected. After selection participants were contacted via their email addresses to partake in the interview. They were informed that although they were identifiable to the researcher, their results would be analysed as a collective group.

The Researcher met all participants in a local coffee shop convenient to them. All interviews were conducted in a coffee shop in order to ensure that all the environments were the same thus controlling for the environment being a

confounding variable. Participants took park in a 20-minute interview in which they were asked 14 open ended questions in relation to their perceptions of shift work and roster schedule on their lives (Please see appendix 4). The researcher decided to use a semi-structured interview method as it puts some structure on the interview but allows for participants to go slightly off topic. All interviews were analysed using a thematic approach. This approach is a method in which the main themes in all interviews are selected and analysed.

Limitations

Upon conducting quantitative analysis, it is essential to have a rich sample set. However, within this study although there is a sample size of 109 participants there is not an even number of participants within each group as indicated above. As a result, this uneven sample in all the groups may skew the results as they cannot be adequately compared due to lack of power.

Additionally, it was necessary to score NA in the Bergen shift work sleep scale questionnaire as a missing case thus excluding it from the analysis. This impacted the sample size immensely as the sample for this scale was now only included 64 valid responses. In light of these limitations results should therefore be viewed with an air of caution.

Upon conducting the qualitative analysis, the researcher contacted 10 individuals to partake in the study. However, on the 01st August the last participant to be interviewed pulled out. This left the researcher with too little time to obtain an additional participant.

Ethical Consideration:

During the commencement of this study it was apparent that ethical risks may have occurred. The first ethical risk that may have potentially occurred was in relation to answering questions regarding their work. The researcher identified that participants may have feared being reprimanded by their employer for answering negatively to questions regarding their work. In order to overcome this the Researcher assured participants in the information page that all results will not be identifiable and will not be reported back to employers as results will be analysed at a group level. Additionally, participants were informed that should they not wish to take part in the study they did not have to do so and they could retract their participation at any point.

As a result, to the sensitive questions that were asked regarding stress, participants may have felt levels of distress. Therefore, participants were given the researchers name and number should they have any issues or wish to remove themselves from the data. Additionally, participants were given a number for Samaritans Ireland should they wish to talk to a professional for advice.

Data Protection:

Collection

All data that was de-identified unless participants gave their email address. In the instance of participants giving their email address they were informed that it was optional and should they wish to do so they may be contacted for an interview and their data will not be de-identified. However, they were assured that only the

researcher would have access to their results and data would not be reviewed at an individual level, rather it would be analysed at a collective level using themes. Participants were also required to give demographic information such as age, gender, educational status, family status and if they work part time or full time. In addition to collecting information via online surveys an audio recorder was used to collect qualitative information through semi-structured interviews. Individuals were informed that what they said would not be analysed at an individual level rather at a collective level through the use of themes.

Storage & Destruction

Data will be collected and stored in a secure and durable filing system with the researcher having sole access. The data will be stored for a duration of 5 years to protect against falsification of results. Following the 5 years all data will be permanently destroyed and disposed of in a professional and secure manner.

Dissemination & Reporting

All data both audio and surveys were de-identified. Additionally, all results were analysed at collective level and participants will not be able to access individual results. They were made aware that results to the study will be published on the National College of Ireland database should they wish to view them at a group level. If they have any issues or questions they are able to contact the researcher through a direct email address and phone number.

RESULTS

Descriptive Statistics

Upon analysis of Table 1 it is evident that the Gender of the sample is slightly

skewed towards the female population with Females accounting for 56% and Males

accounting for 44% Additionally, the sample within this study is predominately Full-

Time workers (69%) with the majority not having children (80%). It is evident from

Table 1 that the predominant shift type within the hospitality industry in this

sample is the varied group (54%), followed by the fixed group (38.5%). It can be

seen that very few employees work primarily Evening work (2.8%) or Night work

(4.6%) within the sample. Table 1 clearly expresses that the majority of employees

get on average 5-7 hours of sleep per night (67%), followed by 8-11 hours (29.4), 1-

4 hours (2.8%) and 12+ hours (0.9%). It is also evident from the table that the vast

majority of participants within this study are not in education (70.6%).

Table 1 **(for displaying information regarding categorical variables)**

Frequencies for the current sample of hospitality workers on each demographic

variable (N = 109)

Variable	Frequency	Valid Percentage
Gender		
Male	48	44
Female	61	56
Work Status		

Full Time	75	68.8
Part Time	34	31.2

Shift Type

Fixed	42	38.5
Evening	3	2.8
Nights	5	4.6
Varied	59	54.1

Roster Schedule

Less Than 3 Days	12	11.0
1 Week	50	45.9
2 Weeks	6	5.5
1 Month	8	7.3
Fixed	33	30.3

Children

Yes	21	19.3
No	88	80.7

Average hours of sleep

1-4	3	2.8
5-7	73	67.0
8-11	32	29.4
12+	1	0.9

Currently in education

Yes	32	29.4
No	77	70.6

Average hours of study

None	78	71.6
1-5	17	15.6
5+	14	12.8

Fig 1.1
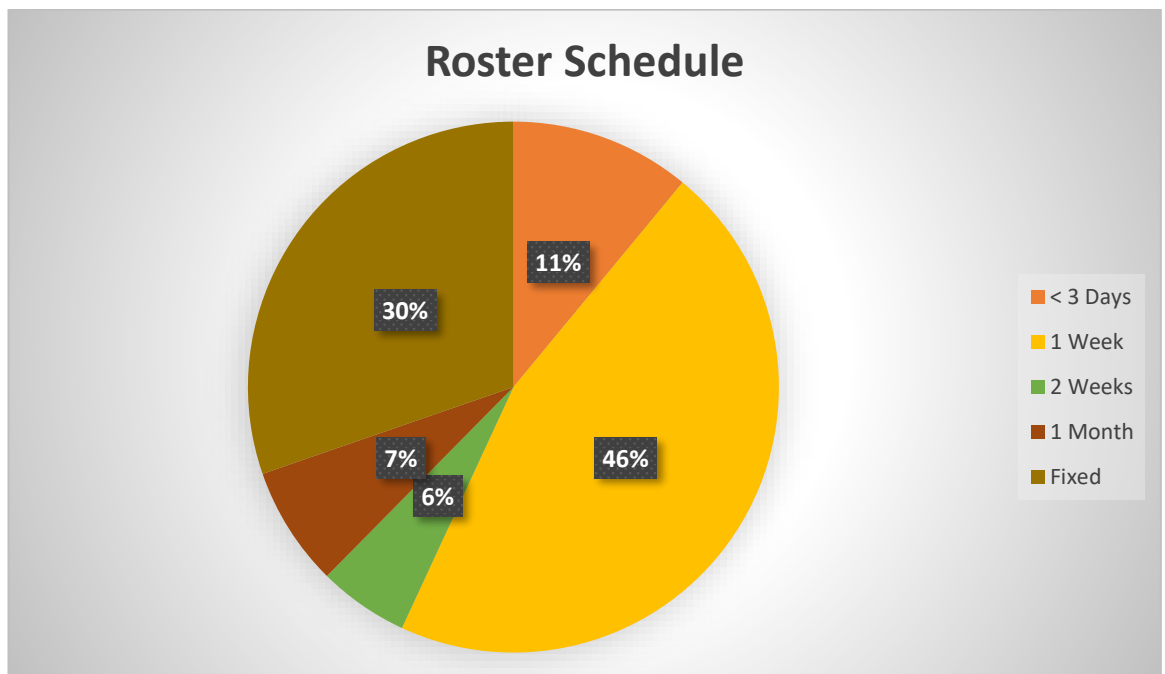
From the pie chart above it is evident that there are two predominant roster schedules within the study. The dominant roster schedule within this study is the 1-week category, accounting for 46% of the sample. The fixed roster schedule follows behind with 30% of the sample population. Less than 3 days accounts for a mere 11% of the sample followed closely behind by 1 month (8%) and 2 weeks (6%).

Fig 1.2

Shift Type

- Fixed
- Evening
- Nights
- Varied

38.5

54.1

4.6

2.8

Upon analysis of the Pie chart above, evidently the most prevalent shift type within the study is the varied shift type (54.1%). This shift type refers to individuals who are required to work morning, evening and night shifts throughout thei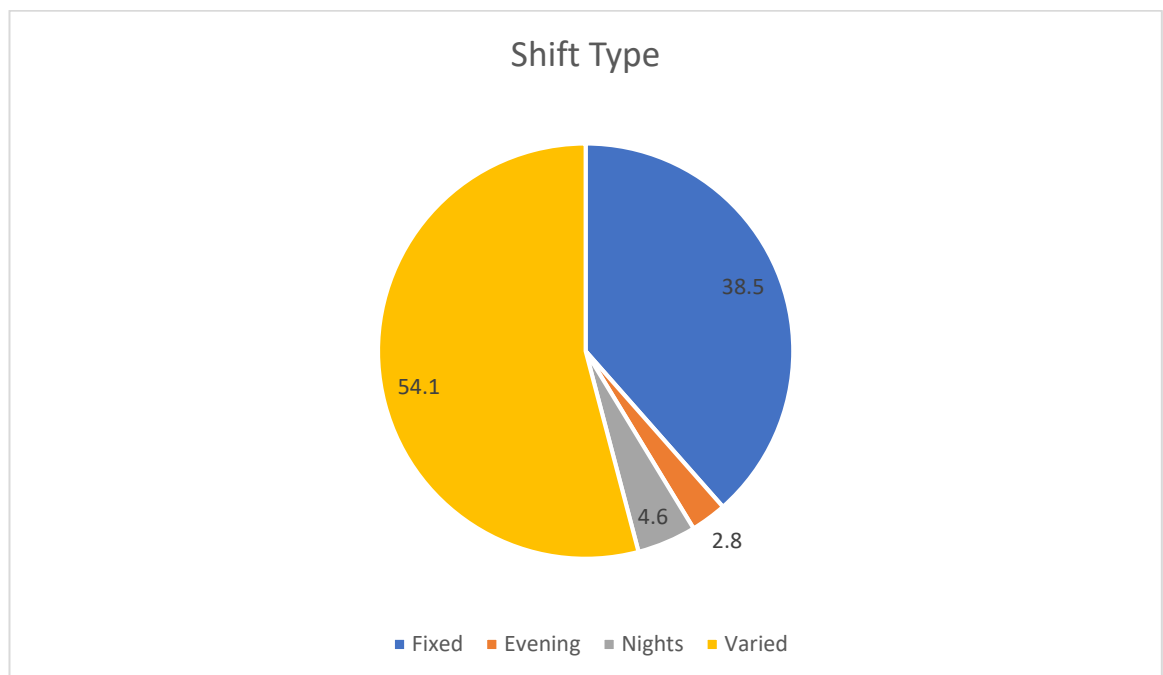r work week. The second most predominant shift type is the fixed shift type (38.5%) this type refers to employees who only work a set work week e.g. sales etc. The two other shift types; Evening (2.8%) and Nights (4.6%) only account for a very small proportion of the sample.

Table 2 **(Presenting descriptive statistics for continuous variables)**

Descriptive statistics of all continuous variables

	Mean (95% Confidence Intervals)	Std. Error Mean	Median	SD	Range
Sleep					
Fixed	40.1 (25.2-55.06)	6.48	46	19.45	10-71
Evening	66 (-137.3-269.3)	16.0	66	22.62	50-82
Night	56.7 (36.81-76.68)	6.26	57.5	12.52	44-68
Varied	53.5 (49.03-57.9)	2.22	54	15.23	10-79
Social					
Isolation					
Fixed	27.83 (25.5-30.12)	1.13	29.5	7.3	10-42
Evening	13.67 (-.88-28.2)	3.38	16	5.86	7-18
Night	15.4 (8.0-22.7)	2.65	13	5.9	10-24
Varied	19.3 (17.6-21.2)	.88	18	6.8	0-40
Stress					
Fixed	20.39 (18.64-22.13)	.86	22	5.54	4-29
Evening	10.33 (-10.50-31.16)	4.8	6	8.38	5-20
Night	15.2 (8.7-21.67)	2.3	15	5.21	10-23
Varied	13.8 (12.44-15.25)	.7	13	5.4	4-32

Age	28.51 (26.73-30.30)	.90	24	9.40	18-58

Descriptive statistics for all continuous variables are presented in Table 2. Histograms and Q-Q Plots were used in order to determine the normal distribution of all continuous variables.

Sleep

Fixed Shift

The mean score for Sleep disturbances (M = 40.1, SD = 19.45) among the fixed shift sample was moderate. This indicates that the sample as a whole reported moderate to high levels of sleep disturbances. Upon analysis the mean and median of the sample are close in values suggesting normality. However, upon analysis of the histograms they did not wholeheartedly show a bell curve rather there was only a slight bell curve present. This may be due to the fact that there are only 9 people in this group. However, the normal Q-Q Plot indicated a reasonable amount of linearity therefore it can be said that the sample for sleep is reasonably distributed.

Evening Shift

The mean score for sleep disturbances (M = 66.0, SD = 22.62) among the evening shift the sample was moderate to high. This indicates that the evening shift workers reported moderate to high levels of sleep disturbances. With regards to normality the mean and median are relatively close in values, however, upon analysis of the

histogram and Q-Q P lot normal distribution cannot be identified as a result of this group only containing two participants.

Night Shift

The mean score for sleep disturbances (M = 56.7, SD = 12.52) among the night shift sample was moderate to high. This indicates that the night shift workers reported moderate to high levels of sleep disturbances. With regards to normality the mean and median are relatively close in values, however, upon analysis of the histogram and the Q-Q Plot it cannot be identified if the population is normally distributed as the sample in this group is a mere 4 participants.

Varied Shift

The mean score for sleep disturbances (M = 53.5, SD = 15.23) among the Varied shift sample was moderate. This indicates that the Varied shift workers reported moderate to high levels of sleep disturbances. Upon analysis of normality the mean and median are close together in values indicating that the sample is normally distributed. In support of this the histogram indicates a slight positive skew that is reasonably normally distributed. Likewise, the Q-Q Plot shows a linear line all indicating that the sample is normally distributed.

Fig 1.3
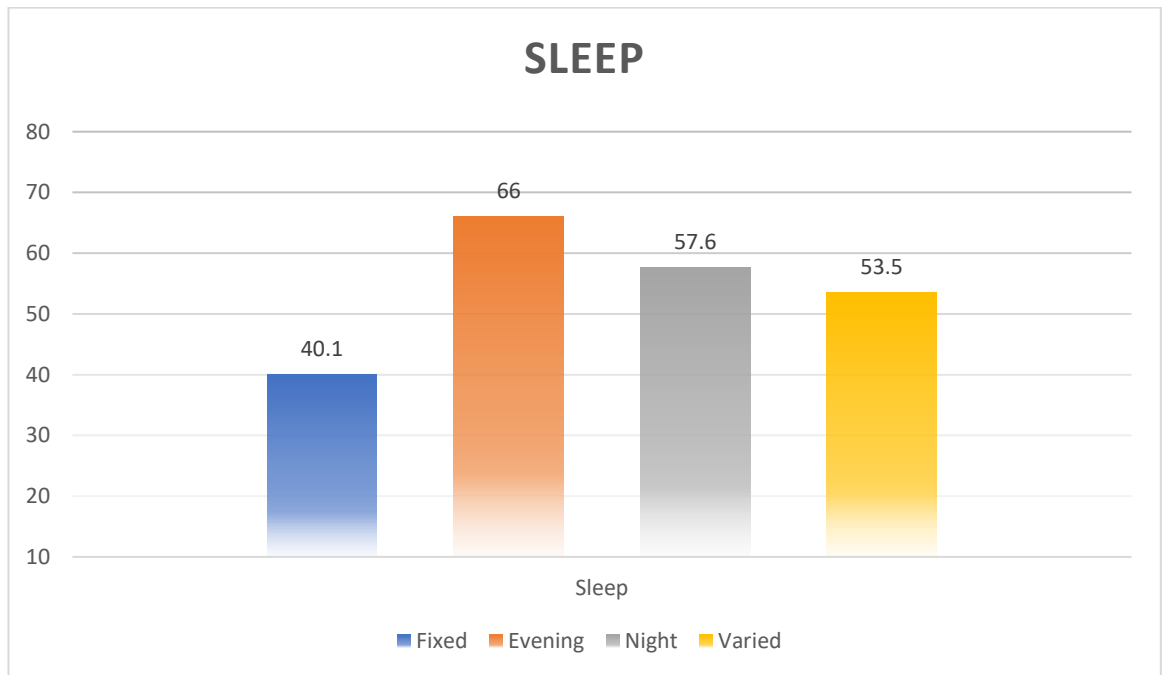
From the Fig 1.3 above it is evident that the group reporting the highest sleep disturbances is the evening shift group, followed by the night then varied group. The fixed group reported the lowest levels. However further analysis is required to determine if this difference is significant.

Social isolation

Fixed Shift

The mean score for Social Isolation (M = 27.83, SD = 7.3) among the fixed sample was moderate. This indicates that the fixed shift workers reported moderate levels of social isolation. With regards to analysing normality the mean and median are close in values indicating a normal distribution. The histogram was analysed in order to determine normality. The histogram revealed a normally distributed bell

curve. In addition, the normal Q-Q Plot indicated linear plots. Therefore, in light of this is can be suggested that the sample is normally distributed.

Evening Shift

The mean score for social isolation (M = 13.67, SD = 5.86) among the evening shift sample was moderate. This indicates that the evening shift workers reported moderate levels of social isolation. With regards to normality the mean and median values are close together indicating a normal distribution. Upon further analysis the histogram and Q-Q Plot it is difficult to assess for normality as there are only 3 participants in this group.

Night Shift

The mean score for social isolation (M = 15.4, SD = 5.9) among the night shift sample was moderate. This indicates that the night shift workers reported moderate levels of social isolation. With regards to normality the mean and median values are close together indicating a normal distribution. Upon further analysis the histogram and Q-Q Plot could not indicate normal distribution as there was a small sample size of 5 individuals in this group.
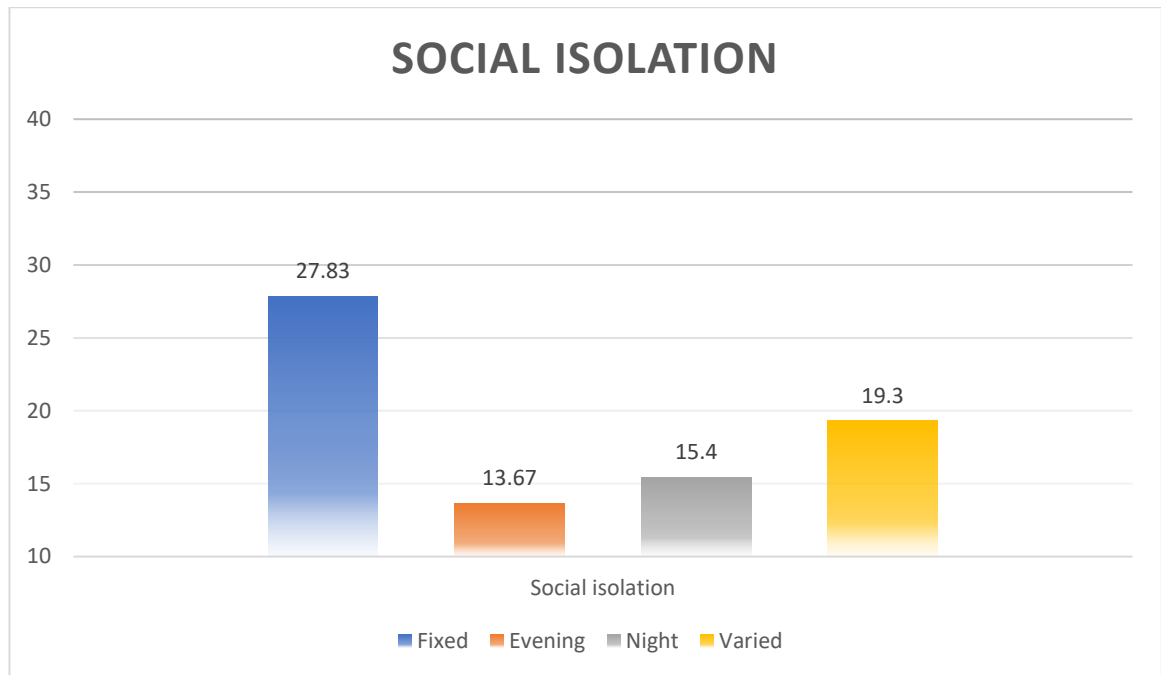
Varied Shift

The mean score for social isolation (M = 19.3, SD = 6.8) among the Varied shift sample was moderate. This indicates that the Varied shift workers reported moderate levels of social isolation. Upon investigation of normality the mean and median were close in values indicating a normally distributed population. In support

the histogram revealed a bell curve and the Q-Q Plot showed linear plots. Both

indicating that the sample was normally distributed.

Fig 1.4

Evidently from Fig 1.4 above it can be seen that the fixed workers report higher

levels of social isolation than the other groups. The varied group report the second

highest amount followed by the night group and the evening group. However,

further analysis must be conducted to assess if this difference is meaningful.

Stress

Fixed Shift

The mean score for Stress (M = 20.39, SD = 5.54) among the fixed shift was

moderate to high. This indicates that the fixed shift sample reported moderate to

high levels of stress. The mean and median are close together in values therefore

indicating a normally distributed population. In addition, histograms were analysed

which indicated a relatively normal bell curve. Also, the normal Q-Q Plot indicated linearity therefore it can be said that the sample for stress is reasonably distributed.

Evening Shift

The mean score for stress (M = 10.33, SD = 8.38) among the evening shift sample was low to moderate. This indicates that the evening shift workers reported low to moderate levels of stress. With regards to normality the mean and median are close together indicating normality. The histogram and Q-Q Plot could not indicate normality as a result of small sample size.

Night Shift

The mean score for stress (M = 15.2, SD = 5.21) among the night shift sample was moderate. This indicates that the Night shift workers reported moderate levels of stress. With regards to normality the mean and median are close together indicating normality. The histogram and Q-Q Plots were analysed but could not indicate normality as the sample size within this group was far too small.

Varied Shift Work

The mean score for stress (M = 13.8, SD = 5.4) among the Varied shift sample was low. This indicates that the Varied shift workers reported low levels of stress. With regards to normality the mean and median were close in values therefore indicating normal distribution. In support of this the histogram was analysed, revealing a reasonably normal distribution. Likewise, upon analysis of the Q-Q Plot, it revealed a linear line therefore all indicating a normally distributed sample.

Fig 1.5
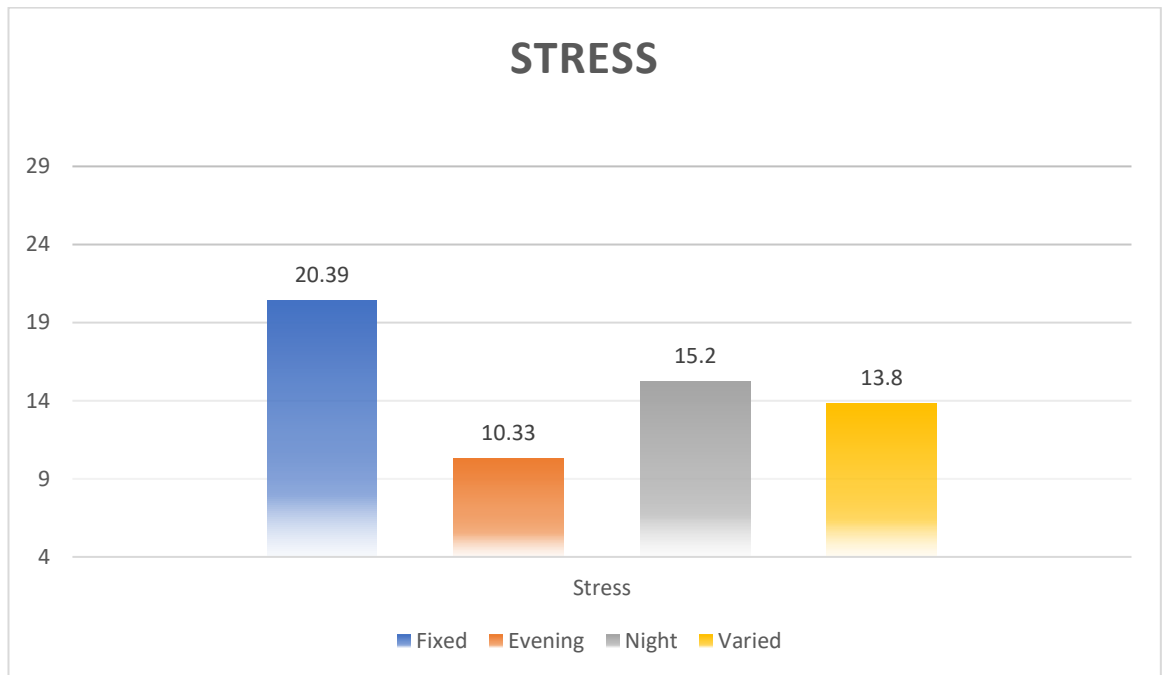
Evidently Fig 1.5 above shows the fixed group reported the highest amount of

stress. Followed by the night shift group, varied and evening group. However,

further analysis is necessary to determine if the difference between the groups is

statistically significant.
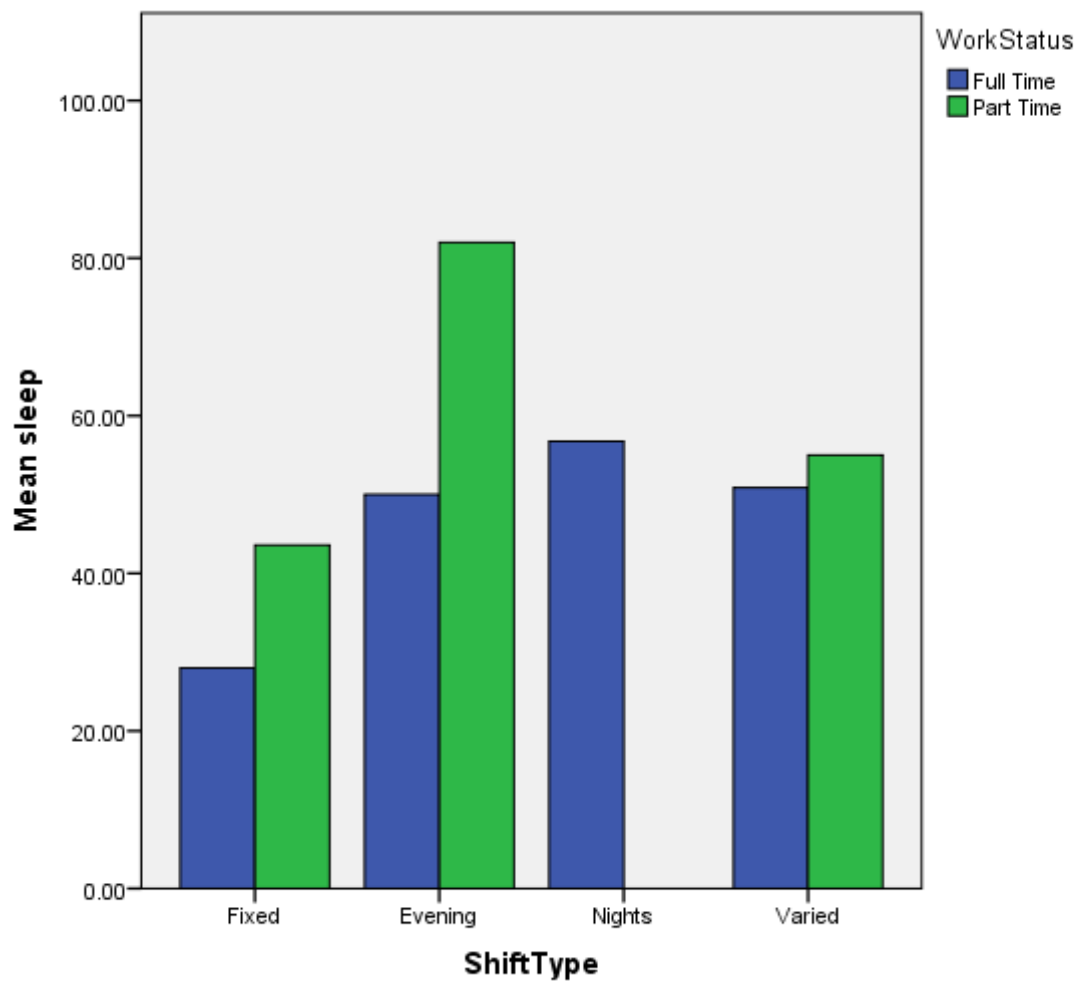
Inferential Statistics

Hypothesis 1

A two-way between-groups analysis of variance was conducted to explore the impact of shift type and shift status on levels of sleep disturbances, which was measured by the Bergen Shift Work Sleep Scale. Participants were divided into groups based upon their shift type (Group 1: Fixed Shifts; Group 2: Evening Shifts; Group 3: Night Shifts; Group 4: Varied Shifts). The interaction effect between shift type and shift status was not statistically significant, $F_{(2, 55)} = 1.04$, $p = .36$. There was a statistically significant main effect for shift type, $F_{(3, 55)} = 3.24$, $p = .03$; however, the effect size was small (partial eta squared = .2). Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the fixed group (M = 40.11, SD = 19.45) was not statistically significant from the Evening group (M = 66, SD = 22.62). The Fixed group was not statistically significant from the night group (M = 56.8, SD = 12.5). The Fixed Group was not statistically different from the varied group (M = 52.2, SD = 16.5). The evening, night and varied group did not differ significantly from one another. The main effect for work status, $F_{(1, 55)} = 3.94$, $P = .05$ did reach statistical significance.

Fig 1.6

Hypothesis 2

A two-way between-groups analysis of variance was conducted to explore the impact of shift type and shift status on levels of social isolation, which was measured by the Work non-work interference scale. Participants were divided into groups based upon their shift type (Group 1: Fixed Shifts; Group 2: Evening Shifts; Group 3: Night Shifts; Group 4: Varied Shifts). The interaction effect between shift type and shift status was not statistically significant, $F_{(2, 102)} = .42$, $p = .65$. There was a statistically significant main effect for shift type, $F_{(3, 102)} = 5.86$, $p = .001$; however, the effect size was small (partial eta squared = .2). Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the fixed group (M = 27.83, SD = 7.3) was statistically significant (.006) from the Evening group (M = 13.67, SD = 5.85). The Fixed group was statistically significant (.002) from the night group (M = 15.4, SD = 5.9). The Fixed Group was statistically different (0.001) from the varied group (M = 19.38, SD = 6.8). The evening, night and varied group did not differ significantly from one another. The main effect for work status, $F_{(1, 102)} = .19$, $P = .6$ did not reach statistical significance.
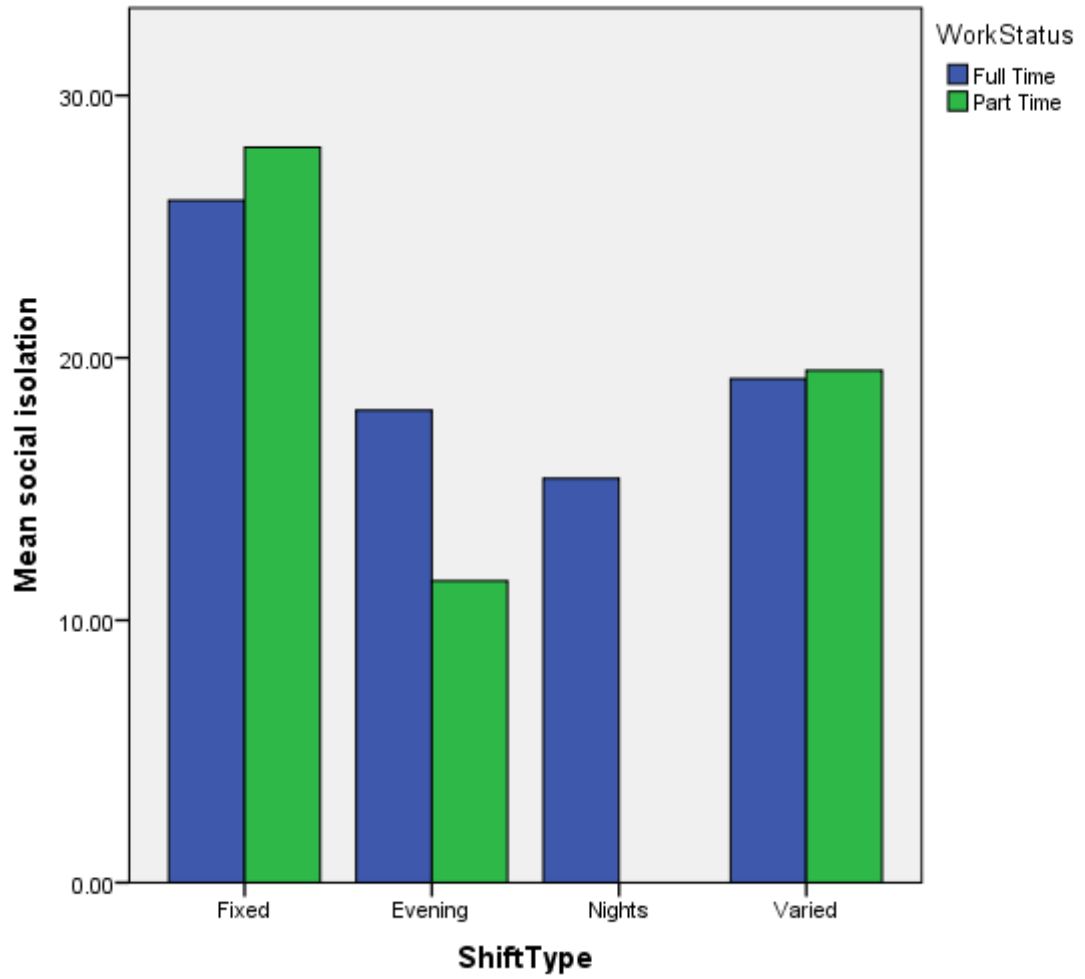
Fig 1.7

Hypothesis 3

A two-way between-groups analysis of variance was conducted to explore the impact of shift type and shift status on levels of stress, which was measured by the Perceived stress scale. Participants were divided into groups based upon their shift type (Group 1: Fixed Shifts; Group 2: Evening Shifts; Group 3: Night Shifts; Group 4: Varied Shifts). There was a statistically significant interaction effect between shift type and shift status on perceived stress levels $F (6, 101) = 3.66$, $p = .03$. In light of this it is difficult to interpret the true effect therefore it is necessary to run a simple main effect. Upon conducting this there was a statistically significant difference in mean perceived stress scores between full and part time employees who worked the evening shift, $F (1, 101) = 4.79$, $p = .03$, partial $n^2 = 0.05$. For Full time and Part time employees working the evening shift, mean stress levels score is 14.5 (95% CI, 1.4 – 27.6) points higher for full time employees than part time employees $F (1, 101) = 4.79$, $p = .03$, partial $n^2 = 0.05$. Data are mean and standard deviation unless specified. For fixed shift type, mean perceived stress scores for full time employees was $M = 23.0$, $SD = 5.2$ and $M = 20.1$ and $SD = 5.5$ for part time employees, a mean difference of 2.8 (95% CI, -2.7 to 8.5), $F (1, 101) = 1.03$, $p = .312$, partial $n^2 = .01$ was not statistically significant. Data are mean and standard deviation unless specified. For Varied shift type, mean perceived stress scores for full time employees was $M = 12.79$, $SD = 4.3$ and $M = 14.5$ and $SD = 5.9$ for part time, a mean difference of 1.7 (95% CI, -4.6 to 1.06), $F (1, 101) = 1.54$, $p = .217$, partial $n^2 = .015$ was not statistically significant.

Fig 1.8
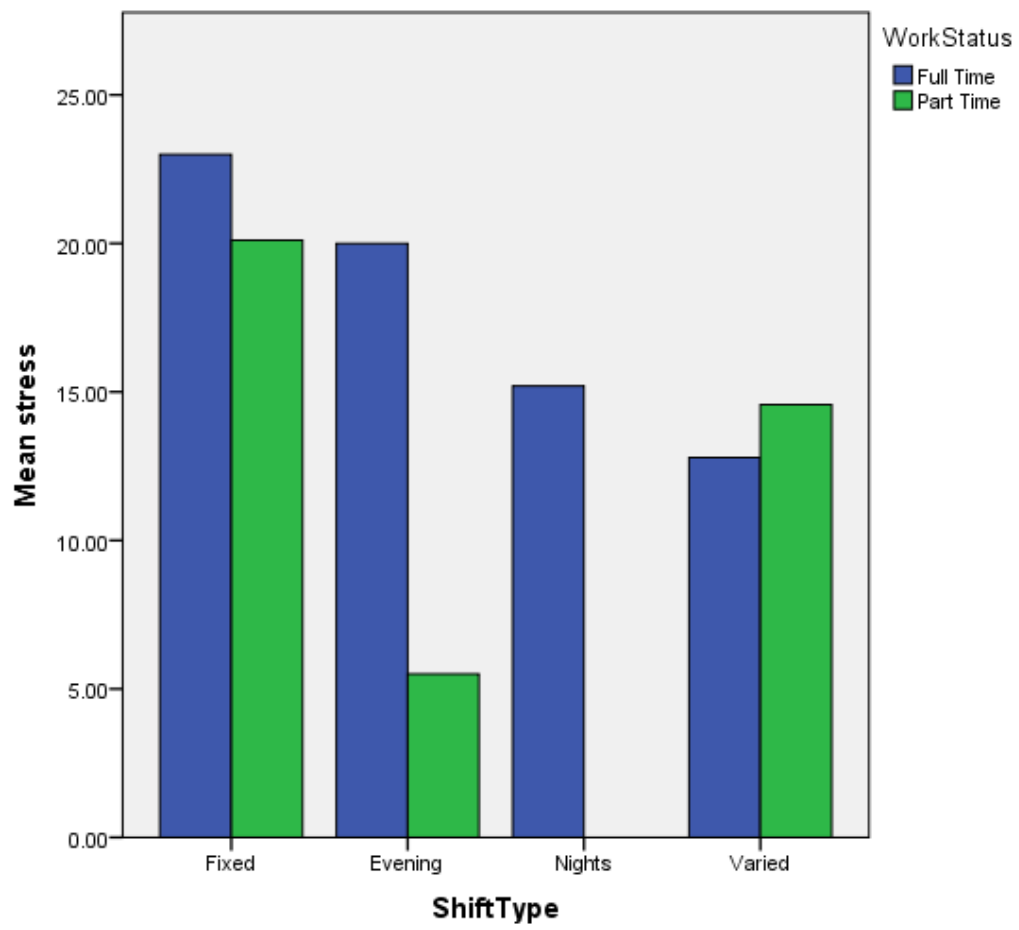
Exploratory question 1

A one-way between-groups analysis of variance was conducted to explore the impact of roster schedule on levels of sleep disturbances, measured using the Bergan Shift work Scale. Participants were divided into five groups dependent on their roster schedule (Group 1: Less than 3 days; Group 2: one week; Group 3: two weeks; Group 4: one month; Group 5: Fixed). There was not a statistically significant effect of roster schedule on levels of sleep disturbances; $F_{(4, 57)} = 1.47$, $p = .22$. The effect size, calculated using eta squared, was very small .01 (Cohen, 1998). Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 1 (M = 48.6, SD = 7.63) was not statistically different (p = .65) from Group 2 (M = 60.3, SD = 13.46). The mean score from Tukey HSD test indicated that the mean score from Group 1 was not statistically significant (p = .9) from Group 3 (M = 50.97, SD = 17.9). Group 1 was not statistically different (p = .9) from Group 4 (M = 40, SD = 16.5). Group 1 was not statistically different (p = .9) from Group 5 (M = 55.5, SD = 11.38) All other Groups were not statistically different from one another.

Fig 1.9

Error Bars: 95% CI

Exploratory question 2

A one-way between-groups analysis of variance was conducted to explore the impact of roster schedule on levels of social isolation, measured using the Work non-work interference scale. Participants were divided into five groups dependent on their roster schedule (Group 1: Less than 3 days; Group 2: one week; Group 3: two weeks; Group 4: one month; Group 5: Fixed). There was a statistically significant effect of roster schedule on levels of sleep disturbances; $F_{(4, 22)}$ = 11.11, p = .01. The effect size, calculated using eta squared, was small .3 (Cohen, 1998). Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 1 (M = 28.15, SD = 6.75) was statistically different (p = .00) from Group 2 (M = 14.67, SD = 2.87). The mean score from Tukey HSD test indicated that the mean score from Group 1 was statistically significant (p = .00) from Group 3 (M = 20.4, SD = 8.03). Group 1 was statistically different (p = .07) from Group 4 (M = 17.33, SD = 6.8). Group 1 was not statistically different (p = .7) from Group 5 (M = 24.75, SD = 5.06) All other Groups were not statistically different from one another.

Fig 2.0

Error Bars: 95% CI
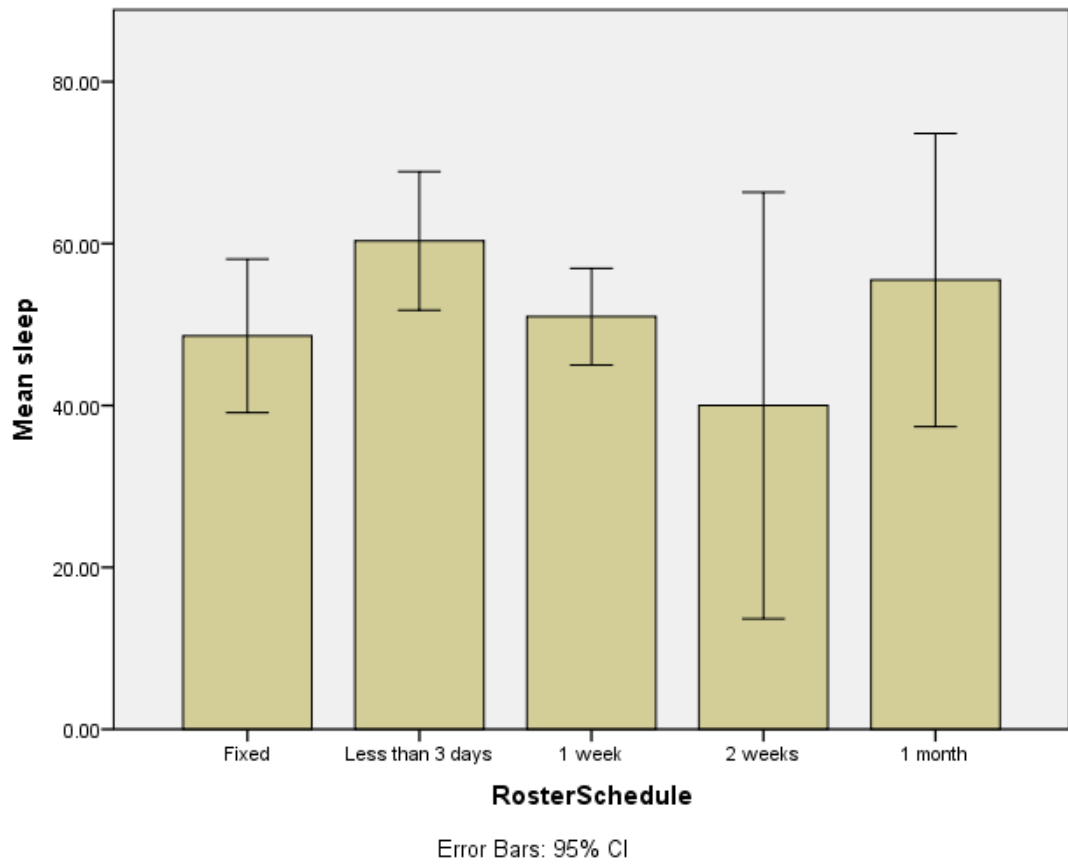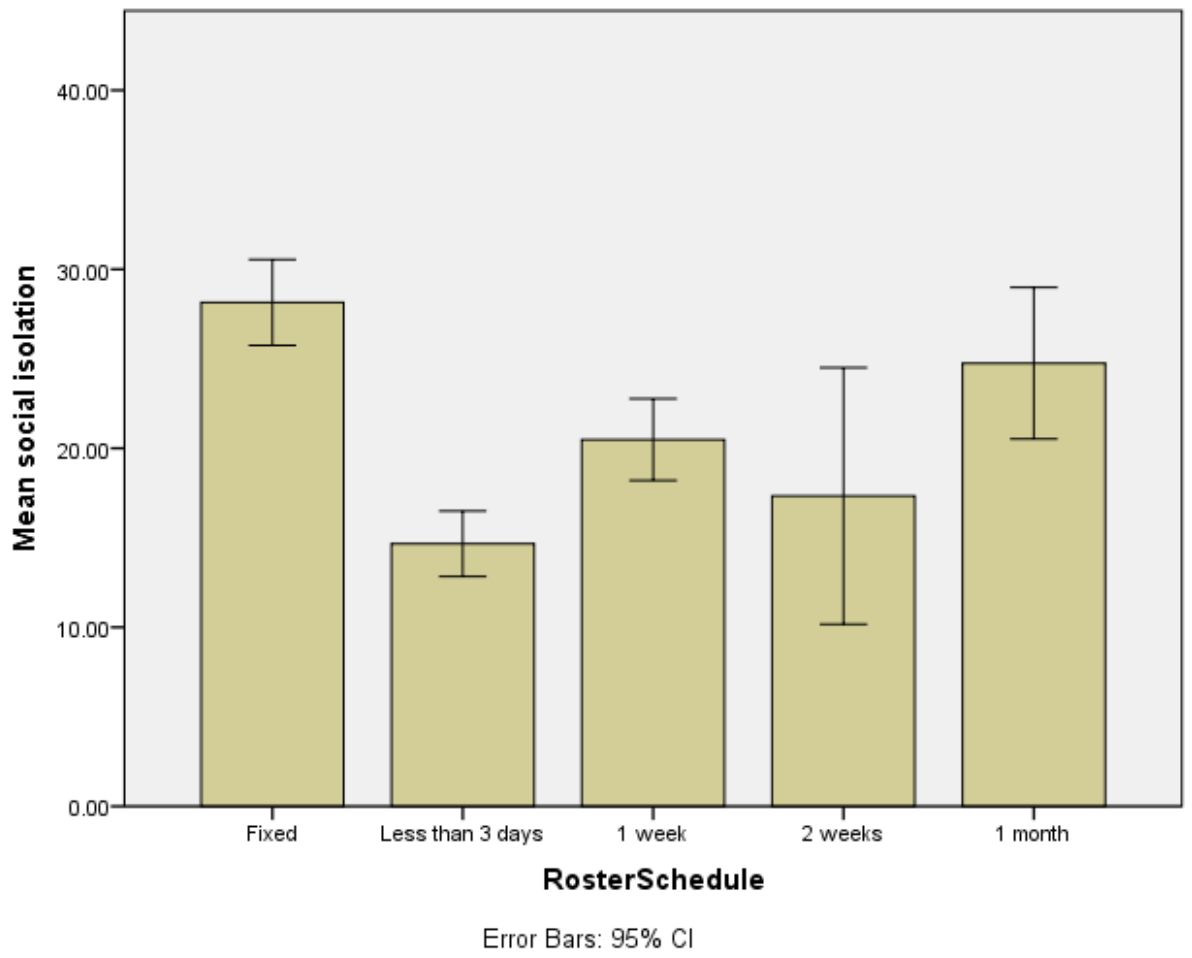
Exploratory question 3

A one-way between-groups analysis of variance was conducted to explore the impact of roster schedule on levels of stress, measured using the Perceived Stress Scale. Participants were divided into five groups dependent on their roster schedule (Group 1: Less than 3 days; Group 2: one week; Group 3: two weeks; Group 4: one month; Group 5: Fixed). There was a statistically significant effect of roster schedule on levels of sleep disturbances; $F_{(4, 22)}$ = 5.4, p = .00. The effect size, calculated using eta squared, was small .2 (Cohen, 1998). Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 1 (M = 19.45, SD = 5.8) was statistically different (p = .00) from Group 2 (M = 10.45, SD = 3.47). The mean score from Tukey HSD test indicated that the mean score from Group 1 was statistically significant (p = .02) from Group 3 (M = 15.5, SD = 6.22). Group 1 was not statistically different (p = .9) from Group 4 (M = 17.6, SD = 9.17). Group 1 was not statistically different (p = .3) from Group 5 (M = 15.25, SD = 2.43) All other Groups were not statistically different from one another.

**Fig 2.1**
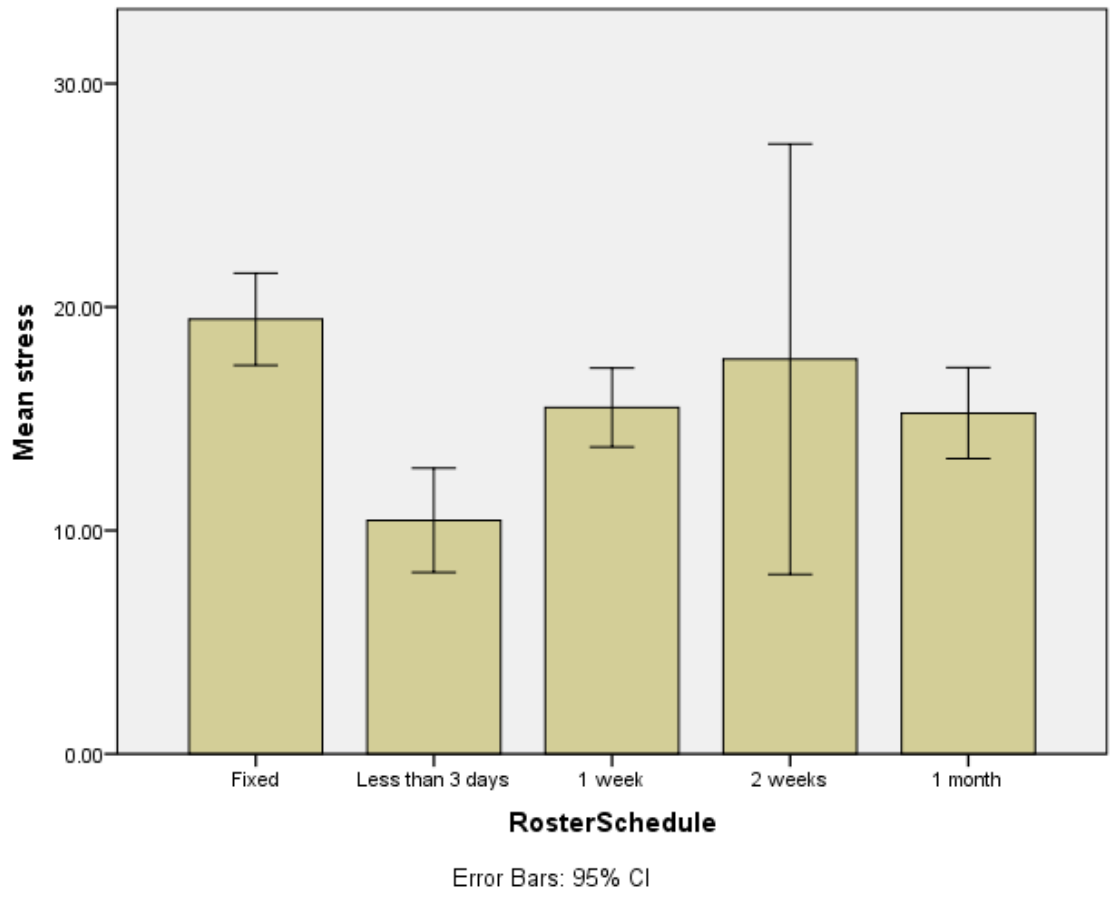
Error Bars: 95% CI

Qualitative Analysis

Semi-structured Interviews

Semi-structured interviews were conducted on 9 participants who worked shift work within the hospitality industry. These interviews were necessary to conduct in order to acquire an in depth understanding of employee's perceptions of shift work and roster schedule within the hospitality industry. All participants within the interviews received their roster between 3 days and 1 week prior to the commencement of their work week. Upon analysing the interviews all participants reciprocated multiple themes. The themes that reappeared throughout all 9 interviews are presented in the table below.

Table 1. Shift Work & Roster Schedule

1. Social Isolation
2. Inability to plan
3. Fatigue
4. Stress
5. Conflict
6. Health Issues

Theme 1: Social Isolation

Evidently, there was a consensus between all participants regarding shift work and short roster schedule in the hospitality industry greatly impedes one's social life. All participants aired concerns regarding working shift work and receiving their roster schedule so late prior to the commencement of their work week. Participants made specific comments regarding how they felt this impacted their social life:

"I miss a lot of small events and sometimes big events like friend's birthdays or nights out because I am working different shifts"

"not knowing how to plan around crazy hours"

"My life is consumed by work"

"My social life is strained because I can't give notice of when I will be available"

From these comments it is evident that the participants within this study felt that their social life is greatly impeded from working shift work as they never know when they are available as they work varied hours/shifts and receive their roster with such short notice. Therefore, they are often having to turn down events. This results in strong perceptions of being socially isolated as clearly indicated above.

Theme 2: Inability to Plan

The second theme that appeared from all the employees who took part in the interviews was their inability to plan their lives. Participants made specific

comments expressing that as a result of receiving their roster with such short notice it is impossible to make plans as follows.

"being an expat, I can't plan my holidays/flights to go home and sometimes they become expensive if booked last minute"

"I even find it hard to do simple tasks like scheduling doctor's appointments"

"I can't always make school events"

"Have to be available 24/7"

From these comments it is reasonable to suggest that the participants within this study all express the same consensus of the inability to plan their life and that they are always confined to revolving their personal life and responsibilities around their work life. They have also expressed concern as to how it has negative impacts on their life as it always results in them upsetting people for example Participant 5 made direct comments referring to how working shift work leads to her upsetting her children by missing school events.

Theme 3: Fatigue

The third reciprocated theme reported is fatigue. Participants expressed concern over the impact of shift work on their sleep patterns. Participants made comments relating to the lack of sleep impacting their mood and socialising. Participants made specific comments as follows:

"I could have a late shift ending at 1 am and then I could be back in at 8am, which I find pretty tough because I can't switch off after the late shift for a good few hours so I am exhausted and moody the next day"

"I end up sleeping at random times…missing social events"

Evidently, it can be seen that participants have concern over the impact of working shift work on their sleep behaviours. It is evident that they perceive it to be impacting their mood, socialisation and causing fatigue which may impact their overall health.

Theme 4: Stress

Participants were asked questions regarding the impact of shift work and roster schedule on their life. Overall participants reported a negative effect on their stress levels. Participants made specific comments as follows:

"I have to rely on my family a lot to mind my children and it stresses me because I don't want to burden them"

"very stressed by not being able to plan my week and having to work varying shifts as it is very difficult to get college work done"

"Rugby is a real passion of mine and I cannot commit to my training so I am gaining weight and it is stressing me out"

"can't always make school events like plays so my children always end up being upset"

Evidently, from these comments it can be seen that no matter the age or the stage one is in their life shift work heightens their stress as they cannot control their life as a result of unknown shifts and receiving their roster at such short notice. Leaving them to rely on other people to support them. Additionally, they do not have time or control over other important aspects of their life such as family, college and fitness heightening their stress.

Theme 5: Conflict

Another major theme identified from the interviews was the theme of conflict. Participants clearly stated that as a result of working shift work there is tension and conflict within their personal life. Participants made specific comments as follows:

"I am always so tired so I get really moody with my family over silly comments"

"I come home at like 3am and I don't think I am being noisy but apparently I am and I wake up at least one person in the house"

Evidently, these specific comments indicate that the conflict arises as a result of shift work causing fatigue which in turn is causing participants to have short fuses with their loved ones. Additionally, participants state that as a result of their sleep schedules being different to their families they end up waking each other which causes arguments almost daily.

Theme 6: Health Issues

The sixth evident theme from the interviews was participants concern over their general health. Participants made specific comments regarding weight gain, lack of breaks and lack of a healthy eating pattern.

"I cannot commit to training so I am starting to gain weight"

"I worry about my diet and lack of exercise due to tiredness and lack of preparation of meals at home"

"Lunch and coffee breaks are generally overlooked…..it is an alien concept"

Evidently from these comments it is reasonable to state that breaks and rest periods are often overlooked in the hospitality industry and it is not uncommon to work long shifts of more than 10 hours. As a result, participants are having to snack on the go and do not have time to prepare their meals. Additionally, due to the unpredictable roster schedule they cannot attend their training regularly thus they are not exercising as much as they could be.

In conclusion, it is evident that all participants share the consensus regarding shift work and roster schedule within the hospitality industry. As clearly indicated above it is evident that all participants analysed perceive shift work and roster scheduling within the hospitality industry attain negative effects on their lives. It is reasonable to state this as all 9 participants expressed how they felt shift work is damaging to their health causing weight gain due to the inability to commit to regular training sessions along with lack of breaks resulting in eating on the go. Additionally, as a

result of receiving their roster so close to the start of their work week they do not have time to plan, resulting in breakdown of relationships or fear this will be the result in the near future.

Participants were asked their opinions regarding their thoughts of improvements management could make to improve employees lives. There was an overall agreement between participants. All participants stated the amount of time they receive their roster currently prior to the commencement of their work week was far too short notice as they *"cannot make plans in advance",* and they *"have to give up hobbies"* due to the inability to commit to training sessions. There was a common consensus to improve their life while working shift work would be to *"choose our 2 days off", "receive our roster 2 weeks in advance"* or to be able to *"request all necessary days off for the month".*

Additionally, as a result of employees missing out on quality time with friends and family and their life revolving solely around work, they suggested for management to implement *"team building event", "offer more staff days or activities to get to know each other and share experiences"* or *"BBQ and family event days".*

DISCUSSION

The primary motive of this study was to empirically explore the role of shift work and roster schedule whilst controlling for work status on one's sleep, stress and social isolation. Additionally, the researcher aimed to further explore by gaining an insight into participants perceptions of shift work and roster schedule on all aspects of their lives through the use of a mixed methods approach. The driving force behind this study stemmed from the new world of work that is the 24-hour climate. As previously mentioned due to technological and economic advancements it is necessary for organisations to operate 24 hours of the day. Thus, making shift work the main working type (Costa, 2003). Previous research has suggested that shift work improves work life balance (Sweet at al., 2014; Bambra, Whitehead, Sowden, Akers and Petticrew, 2008). However, all research in support of this statement state employees have flexibility in choosing their shifts (Lockwood, 2003).

However, in reality this is not always what occurs rather it is a means of necessity to compete in the 24-hour environment (Costa, 2003). Previous studies have attributed shift work to having negative effects on overall health (Bushnell, Colombi, Caruso and Tak, 2010; Kivimaki, Kuisma, Virtanen and Elovainio, 2001). However, in light of the abundance of studies conducted on shift work the effects are still not comprehensively clear and require further investigation to fully understand all the impacts of shift work. It is reasonable to state this as majority of studies are conducted within the healthcare profession on an American population. As a result, the results cannot be generalised to all professions or cultures as cultures have different values for example the Asian culture prioritise their work life

over family life (Hofstede, 2014). Therefore, they do not seek high work life balance. Additionally, no study has considered the impact of roster on stress, sleep or social isolation which may potentially be a confounding variable regarding the negative effects of shift work. In light if this, the researcher conducted this further enrich and add to the existing scientific research regarding shift work.

Sleep

This study set out to investigate the impact of working shift work on one's levels of sleep. Research has identified sleep patterns to be determined by an individual's circadian rhythm. A circadian rhythm is a 24-hour internal body clock, controlling one's sleep cycle (Papagiannakopoulos et al., 2016). As previously mentioned in the literature review the main premise of shift work is working varying shifts between morning, noon and night in order to compete in this 24-hour environment (Lockwood, 2003; Pinel, 2011). Evidently, as a result of this 24-hour world time and rest is no longer a detrimental factor, resulting in individuals spending less time asleep and more time working (Costa, 2003). Plentiful research has been conducted indicating shift work negatively impacts one's circadian rhythm leading to feelings of fatigue and jet lag, otherwise known as shift lag (Picher, Lambert and Huffcutt, 2000). Additionally, as a result of fatigue, there is an increase in the prevalence of work place accidents (Akerstedt, 2003).

In light of the majority of previous research being conducted within the nursing sector, hypothesis one set out to discover if those working shift work within the Irish hospitality work would report higher levels of sleep disturbances than their fixed worker counterparts. This was analysed whilst determining if one's shift status

(full time or part time) mediated an effect in results. A two-way between groups ANOVA revealed that there was no interaction effect between shift type and shift status. This indicates that the impact of shift type on sleep disturbances was equivalent for full and part time employees. Upon analysis of results, evidently there was a statistically significant main effect between shift type and levels of sleep disturbances, therefore accepting the alternative hypothesis. However, post-hoc results could not reveal where the difference between the groups lay. In light of this, it can be said that the type of shift one works does have an impact on their levels of sleep disturbances. However, it is not known which shift attains the greater level of disturbances. In light of this, this hypothesis can be seen to somewhat support previous research as previous research has indicated that there is a difference between traditional and shift work employees in terms of their reported sleep disturbances (Knauth, 2006; Oexman et al., 2002; Picher, Lambert and Huffcutt, 2000). However, the previous research indicated that the difference between groups results from shift work employees reporting greater levels of sleep disturbances.

It is reasonable to suggest the difference between the groups cannot be identified as a result of the sample size. This is justifiable as it was necessary to code all NA responses as missing case, which excluded over 40 participants from the analysis. Additionally, sample size may be the potential factor for this result as the assumption of a two-way between groups ANOVA is to measure the difference between 3 or more categorical groups. However, the sample within this study consisted of 4 groups in which 2 of the groups had less than 5 participants in each,

therefore potentially not containing enough power for a two-way ANOVA (Pallant, 2010).

A semi-structured interview was conducted to delve further into participants perceptions of shift work on sleep. A thematic approach was used to determine employee's perceptions. Upon investigation of the semi-structured interviews it is evident they give support to previous research indicating shift work to have negative effects on sleep. This result is evident as participants referred to working shift work leaving them "being unable to switch off" as a result feeling "exhausted the next day". Additionally, they stated how they would "sleep at random times". This can be seen to support previous research as previous research has shown how employees who work shift work cannot maintain or adjust their circadian rhythm as a result of working varied shifts (Knauth, 2006; Oexman et al., 2002). As a result, it can be inferred that as working varying shifts; morning, noon and night one cannot fall asleep straight away as their body clock is not consistent. This supports the research presented in the literature review.

Exploratory question 1 set out to explore if roster schedule impacts sleep. This research was exploratory in nature as roster schedule had not yet been considered in terms of its impact on one's quality of sleep. A one-way ANOVA was conducted to determine if there was a difference in reported sleep disturbances between the different shift types. Results concluded there to be no significant difference between the shift types. Therefore, suggesting that no matter how far in advance on receives their roster, all will report the same levels of sleep disturbances. This

question was exploratory in nature as a result of its novel aspect therefore seeking to add to the scientific literature.

Participants in the semi-structured interview did not report roster schedule to attain negative effects on their levels of sleep. Therefore, supporting the quantitative analysis. However, they were not directly asked a question regarding their perception of roster schedule on their sleep quality.

Social Isolation

This study set out to investigate the effects of working shift work on one's levels of reported social isolation. Specifically, Hypothesis 2 set out to determine if those who worked shift work would report higher levels of social isolation than their fixed worker counterpart along with analysing in terms of shift status. A two-way between groups ANOVA was conducted to investigate this. Results revealed a non-statistically significant interaction effect between shift type and shift status. Therefore, the effect of shift type on social isolation was the same for both full and part time employees. Additionally, results revealed there to be a statistically significant main effect of reported social isolation levels between the groups, thus supporting the alternative hypothesis. The results revealed he fixed workers to report greater levels of social isolation than their shift work counterparts. This can be seen to contradict previous research suggesting shift work to have negative impacts on one's social life. An abundance of previous research indicated those required to work shift work reported maintain a social life to be extremely difficult resulting in feelings of exclusion (European Foundation, 2000; Brand, Hermann,

73

Muheim, Beck and Holsboer-Trachsler, 2008). It is reasonable to suggest that this contradiction may be the result of various factors. The first factor potentially causing a contradiction in results may be a result of previous research not attempting to consider shift status in their analysis. Previous research analysed the sample as a whole whereas this study analysed them in terms of their shift status. It can be said that this may cause a discrepancy in results due to the sample size potentially not being large enough in each group as the night shift group did not have any part time employees. The second potentially influencing factor as mentioned above the sample size in two of the shift type groups (evening and night) was very small thus could be negatively impacting the results.

However, upon investigation of the qualitative data, it was evident that all participants reciprocated feelings of social isolation in terms of working shift work. Participants reported high levels of social isolation as a result of "not knowing how to plan around crazy hours" which results in them not "having time for friends because they would all be "working social hours". These interviews support previous research as Jensen, Larsen and Thomsen (2017) conducted a study in which they discovered that individuals who worked shift work generally had to turn down invitations to social gatherings as a result of working unsociable hours. They concluded that this constant turning down of events led to them feeling high levels of social isolation. Similarly, Costa (2003) reports individuals missing out on social events as a result of being out of phase with society. Evidently this is supported as participants state missing out as a result of friends "working social hours".

Exploratory question 2 set out to explore if roster schedule had an impact on social isolation. A one way between groups ANOVA was conducted in order to determine if there was a difference between group. Results concluded that there was a statistically significant result. However, results indicated the those who worked the traditional, fixed schedule reported higher levels of social isolation than the shift workers. This hypothesis was exploratory in nature therefore it neither supports or contradicts previous research rather it adds to research. However, upon investigation of the interviews it is evident that participants felt receiving their roster at such short notice as a result of working shift work negatively impacted their lives. Participants were seen reporting that as a result of this short notice they found that they "can't plan any personal time or have to cancel events". Additionally, reporting that as a result they "miss out on social events" and their "social life is strained as I cannot give notice of when I will be available". In light of this it is evident that the short notice individuals receive their roster is impacting their social life greatly thus leaving them feeling increased levels of social isolation. The contradiction between the quantitative and qualitative analysis may be the result of sample size within the roster schedule variable as two of the groups have less than 5 participants in them therefore potentially not having enough power or skewing results due to lack of normality.

Stress

This study set out to investigate the effects of shift work on an employee's perceived level of stress. Specifically, hypothesis 3 sought to determine if those

working shift work would report greater levels of stress compared to their fixed employee counterparts along with analysing in terms of shift status. A two-way ANOVA was conducted in order to investigate if there was a difference between the shift types reported stress levels whilst accounting for shift status. Results concluded there to be an interaction effect between shift type and shift status. This indicates that shift status has an effect on the perceived stress levels. Results concluded there to be a statistically significant main effect between the shift types thus the alternative hypothesis was accepted. With the fixed group reporting greater levels of stress than the shift work group. However, as a result of the interaction effect it causes difficulty in interpreting where the effects lies. Therefore, results must be viewed with caution. In light of this interaction effect, it was necessary to conduct a simple main effect analysis. Upon conducting this, results concluded full time employees who worked the evening shift reported greater levels of perceived stress levels than those of their part time counterparts.

This result contradicted previous research as it indicated those who work shift work report increased levels of stress as a result of the constant rotation of shifts (Chiang, 2010). Additionally, as a result of the varying shifts one cannot plan or balance their responsibilities at home with those at work therefore experiencing an increased level of stress (Fenwick and Tausig, 2001; Brand, Hermann, Muheim, Beck and Holsboer-Trachsler, 2008; Gerber, Hartmaan, Brand, Holsboer-Trachsler and Puhse, 2010). These contradiction in results of this study and previous research may be attributed to the shift typology variable having 2 groups with very small samples which may be skewing the results due to lack of power. Additionally,

results must be viewed with an air of caution due to the interaction effect which may also be a contribution to the contradiction in results.

Upon analysis of the interviews through thematic approach, evidently all participants reiterate the same negative effect of shift work on their overall stress levels. In the interviews participant 4 stated that she "can't always make school events like plays so my children always end up being upset" or "I get very stressed by not being able to plan my week and having to work varying shifts cause it's very difficult to get college work done" additionally "worry about my diet and lack of exercise". In light of these comments it is evident that they all support previous research. All participants can be seen to be feeling increased levels of stress due to the inability to balance their personal responsibilities with their work responsibilities, thus supporting research conducted by Brand, Hermann, Muheim, Beck and Holsboer-Trachsler (2008). Within their study they discovered those who worked shift work reported greater levels of stress as a result of inadequate personal time and the inability to plan. Additionally, it is reasonable to suggest that employees within this study have a poor work life balance as a result of inability to balance their work and home responsibilities. This supports the study conducted by true careers (2002) in which low work life balance was seen to negatively impact one's stress levels.

Exploratory question 3 set out to explore if roster schedule has an impact on stress. A one-way ANOVA was conducted to explore this. Results concluded a statistically significant difference between the groups. Results concluded those who had a fixed roster in fact reported the highest levels of stress. This neither supports or

contradicts previous research as it was exploratory in nature. However, it must be noted that the groups in roster schedule were not evenly matched as the 2 week and 1-month groups both had small sample sizes of 6 and 8 therefore this may have impacted the results of the ANOVA due to lack of power as the other groups had samples of far greater size.

Qualitative analysis set out to explore the perceptions of roster schedule on one's perceived stress levels. Upon investigation using thematic approach participants identified numerous ways short roster schedule impacts their levels of stress. Participants feared a breakdown of relationships as a result of missing out on events therefore fearing they will stop getting invited "I feel stressed by telling my friend's I am unavailable all the time because I don't want them to stop inviting me". "I generally have to pull out at last minute which leads everyone getting annoyed at me". Evidently, participants feel stressed as a result of breakdown in relationships and the inability to plan. It is reasonable to suggest that this is as a result of receiving their roster too close to the start of the work week. However, there is a contradiction in results between that of the quantitative and qualitative. It can be suggested that sample size may have skewed these results. However, future research should be conducted in which both fixed and shift workers are interviewed.

Other Comments

Participants were asked what they felt could be done with regards to shift work and roster schedule in order to improve their life. All participants stated that the roster time should be extended "receive the roster 2 weeks in advance". Additionally, they

should be allowed to "choose 2 days off" as it will give some sort of structure. They also felt that due to the fact that they have to miss out on a lot of events and feel socially isolated that management should introduce team building days and social events. Additionally, the majority of participants stated that one of the main aspects that is negatively impacted from working shift work is their health and diet. They state that this is as a result of not being able to plan their meals, additionally they do not get breaks, it is even defined as an "alien concept". This supports previous research which has indicated shift work to have negative effects on one's overall health in terms of diet and bad habits (Kivimaki, Kuisma, Virtanen and Elovainio, 2001; Bushnell, Colombi, Caruso and Tak, 2010). Kivimaki and colleagues discovered that those who worked shift works reported higher levels of obesity and consumption of tobacco and alcohol than the fixed worker counterparts.

Limitations

Alike all research this study was without limitations which must be considered prior to replication. The first notable limitation was the use of self-report scales to measure sleep, stress and social isolation. This are regarded as a limitation as participants answer the question anonymously therefore it cannot be guaranteed that all answers are completely truthful. It is reasonable to suggest that this may have occurred due to the fact participants were asked questions regarding stress and social isolation. These are sensitive topics therefore participants may not have answered honestly out of fear. Additionally, participants may not have answered honestly out of fear of disciplinary from employers due to giving negative responses regarding their job. However, in the information sheet participants were informed

of the anonymity of the study and the researcher was the sole examiner of results. However, participants may still have chosen not to answer truthfully as a precaution. Therefore, potentially this may have impacted the results of the study.

A second limitation to be cautious of is the study sample size. Although there were 109 participants in the overall sample, it can be said that upon statistical analysis there were not enough participants in all the groups. Specifically, the evening and night shift work group. This is a limitation as the researcher conducted a two-way ANOVA requiring a large sample size (Pallant, 2013). As a result of the inadequate sample size in all two of the groups, results may have been skewed due to lack of power. In light of this it may be the potential cause for contradiction to previous research. Similarly, the two week and one-month roster schedule did not contain a large enough sample for the One-Way ANOVA as a large sample is also required for this statistical analysis (Pallant, 2013). Due to the potential lack of power it may have skewed results. Therefore, if conducted again with a larger sample results may differ. In light of this it would be necessary to increase the sample size in all groups to ensure significant power.

A third limitation to consider upon replication is the Bergen shift sleep work questionnaire. This questionnaire gives participants the option to choose an NA option. In order to ensure accurate results, it was necessary to code the NA responses as 999 – missing value. In doing so it excluded all respondents choosing this from analysis which had a monumental impact on the sample size. Therefore, as a result of this the sample was too small for the ANOVA test thus having little power. In future it would be necessary to increase the sample size immensely in

order for missing case values to possess miniscule effects on the sample size. Alternatively, a different scale could be used to measure sleep that does not require a missing value.

A fourth limitation that should be noted was during the qualitative analysis. Participants involved in the semi-structured interviews were interviewed in local coffee shops. The researcher chose local coffee shops to control for the environment among all interviews to rule out this as a confounding variable. However, the environment of the coffee shop may have negatively impacted results as the coffee shops were very busy therefore potentially inciting feelings of nervousness resulting in participants not willing to share their true thoughts. Therefore, upon future replication it would be more beneficial for the researcher to rent a quiet room that will be the exact same, quiet environment amongst all interviews.

Finally, the fifth limitation to be considered upon replication is in relation to the qualitative analysis. The researcher conducted qualitative analysis on employees working shift work in order to gain a rich insight into their perceptions of shift work on everyday aspects of their lives. However, in doing so the researcher excluded those who worked a traditional, fixed work week. By doing this the researcher missed out on potentially relevant findings which may support the quantitative findings. Upon replication the researcher would suggest to include these participants in the study in order to gain a greater insight and obtain richer data.

IMPLICATIONS AND RECOMMENDATIONS

Practical Implications & Recommendations

Upon completion of this study, evidentially it has numerous practical implications.

1. The first practical implication evident is regarding the novel aspect of this study. This study was the first study to empirically investigate the negative effects that roster scheduling may possess. Upon investigating this concept, the qualitative analysis identified shift work employees to perceive receiving their roster one week prior to the commencement of their work week attaining negative impacts on stress and social isolation. Participants attributed it to have negative effects on their stress as a result on inability to balance responsibilities due to not knowing their shifts.

    Additionally, attributing it to have negative effects on their social life as they cannot plan in advance. Evidently, roster schedule negatively impacts the employees work life balance thus deeming it necessary for management and HR to resolve it. This study allowed management and HR alike an insight into employee's perceptions of roster schedule as it was not known before. Additionally, employees within this study gave recommendations such as implementation of a 2-week roster which management can implement. It is recommended for management to implement a 2-week roster to potentially improve productivity levels. They should analyse productivity and morale prior to changing the roster to determine if the new roster obtains positive results.

In order for management to implement this it will take a certain length of time along with associated costs. With regards to timeline it will take a couple of months as it is recommended for management to analyse productivity prior and after the roster change to identify its success in the organisation. Regarding cost it will not require additional costs however, it will require management to analyse at their spending level biweekly as opposed to weekly.

2. A second practical implication for management results from employees feeling socially isolated as a result of working shift work. Employees referred to the necessity to boost morale through the implementation of team building and social events. The insight gained from this study give HR and Management an indication of how to improve morale and productivity that they may not have previously know. It is recommended for Management to implement team building events as it will help employees form closer bonds thus improving morale as they can share their concerns. Additionally, by implementing this, employees may feel that they can also enjoy themselves and not have to be so serious all the time thus improving morale.

   A suggested timeline for this may be a couple of weeks to months dependant on the season for example if it is busy or quiet. Additionally, it may take some time to give employees notice to attend. In order to implement this recommendation, the organisation will incur costs of the activity. However, it does not have to be too costly they can partake in activities that are cost effective for example a picnic.

3. A third practical implication which can be suggested from this study is for management to rotate 1 weekend off a month for each employee. In doing so this will enable employees to socialise with family and friends who work sociable hours. In doing so it may reduce the feelings of isolation and stress employees have as they will be able to plan their lives more than before. In light of this productivity may increase. Therefore, it is recommended for management and HR to consider implementing this. With regards to a timeline this may take a couple of months to get into a system, attempting to facilitate all employees. A suggested timeline of 2 months for teething problems is suggested. Anything after this the recommendation should be reviewed. With regards to costs it will require management to analyse their costs and sales further in advance to plan effectively.

Research Implications & future recommendations

Upon conducting this study, the researcher identified numerous research implications. The first research implication to be considered results from this study considering the novel aspect of roster schedule. Therefore, the study adds to the existing body of scientific literature regarding shift work. In light of this the study brings rise to future research implications as it is necessary to reconduct this study with a larger sample size. It is necessary to increase the sample size across all roster schedule groups to obtain rich analysis and control for the effects of small sample size on power. It is necessary to do this in order to determine if roster schedule has a statistically significant effect on sleep, stress and social isolation to further add to the scientific literature.

A second research implication identified results from this study being the first study of its kind to investigate effects of shift work on sleep, stress and social isolation on full and part time employees. However, as previously mentioned this study did not obtain a large enough sample size in all groups therefore it is recommended to conduct this study again in the future with an increased sample size.

A third research implication this study brought rise to was the qualitative analysis. The researcher within this study solely interviewed shift work employees in order to gain a rich insight into their perceptions of shift work on their lives. However, in hindsight the researcher recommends to conduct the interviews on both full and part time employees in order to obtain and compare their different perceptions of their work on their lives. Additionally, interview questions were not developed for fixed workers therefore upon future replication it is recommended to develop questions specific to the job to gain accurate responses.

A fourth research implication is to investigate break times within the hospitality industry. This research implication arose from the semi-structed interviews as participants stated that their diet was poor as a result of eating on the go and breaks were generally overlooked. This would be an interesting concept to investigate as this may be the factor that causing shift work to evoke greater levels of fatigue and stress thus supporting previous research. Additionally, it would be interesting to investigate this from an employment law stand point as break times are specifically set out under the working time act to ensure participants do not become fatigued during work.

CONCLUSION

In conclusion it is evident that this study considered novel concepts such as roster schedule that had not been considered in previous research. This study therefore expanded the literature regarding shift work. As it was the first study of its kind to endeavour on such a novel concept, the researcher sought to acquire as much information as possible by conducting a mixed methods approach. The researcher set out to investigate the impact of shift work and roster schedule on sleep, stress and social isolation. Previous research has identified shift work to attain negative impacts on stress (Fenwick and Tausig, 2001; Brand, Hermann, Muheim, Beck and Holsboer-Trachsler, 2008; Gerber, Hartmaan, Brand, Holsboer-Trachsler and Puhse, 2010), sleep (Knauth, 2006; Oexman et al., 2002; Picher, Lambert and Huffcutt, 2000) and social isolation (Jensen, Larsen and Thomsen, 2017; Costa, 2003; Lockwood, 2003). However, all these studies compared the sample as a whole rather than analysing them in terms of their work status (Full and Part Time). This study aimed to investigate this by conducting a two-way ANOVA investigating the effects of shift work and shift status on sleep, stress and social isolation. Hypothesis one, two and three did not support previous research as they indicated that the traditional workers reported higher levels of sleep, stress and social isolation.

 However, upon investigating the qualitative analysis the interviews supported previous research indicating shift work participants to report feelings of fatigue, stress and social isolation. It conclusion it can be said that this discrepancy in results may be as a result of sample size in the groups therefore it is necessary for future research to obtain a larger sample size to determine if similar results will be

obtained. In terms of roster schedule this was a novel concept adding to the literature. A one-way between groups ANOVA was conducted to investigate this exploratory research. However, there was a discrepancy between the quantitative and qualitative analysis as the quantitative indicated the fixed group reported greater levels of social isolation, sleep and stress. However, the interviews reported that employees receiving their roster 1 week in advance was inadequate time, negatively impacting their social life and stress. Therefore, a number of recommendations were suggested to management upon completion of this study. It is reasonable to state that if these recommendations are implemented productivity within the workplace has the potential to increase thus employees will be a financial asset to the organisation. In light of this it can be said that if this does occur the costs associated with the implementation of these recommendations will be minuscule in comparison to their positive outcomes.

In light of conducting this study it is reasonable to suggest it has added to the literature by attempting to investigate novel concepts previous research has not attempted before. However, like all research it is without research therefore upon replication it is necessary to consider the limitations and recommendations presented above.

PERSONAL REFLECTION

Upon endeavouring on this project, I did not realise that it would be such a rollercoaster of a journey. I initially took on this task not thinking it would be too difficult as I had done my undergraduate dissertation the previous year. I wanted to challenge myself this year, I wanted to try new things that I had not tried before. Therefore, I set of with the connotation of doing a mixed methods design. I initially did not realise how much work would be involved in this. I also, have been working full time throughout the whole summer so I really did have to make a time plan and stick to my schedule as much as possible. However, like every aspect of research it does not always go according to plan. If anything, I learnt how to time manage and stay calm when the pressure amounts. Overall, I am really happy with going on this whirlwind of a journey as I learnt a lot about myself and other people. You also learn who you can lean on for support and who you cannot.

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Bergen Shift Work Sleep Questionnaire

BSWSQ

Items

Below are some questions about how your sleep and your wake-time functioning have been during the last three months in relation to different work schedules.

 If you have not worked a particular type of shift (day shift, evening shift, night shift) then tick off "not applicable (N/A)"

Items were scored from 0 (Never) to 4 (Always). NA is scored as Missing Case

1. How often has it taken you more than 30 minutes to fall asleep after the light is switched off? (Tick off one alternative on each line)

    a) When you are working day shift/ordinary day work?

☐   ☐   ☐   ☐   ☐   ☐

Never   Rarely Sometimes Often Always N/A

    b) When you are working evening shift/evening work?

☐   ☐   ☐   ☐   ☐   ☐

Never   Rarely Sometimes Often Always N/A

    c) When you are working night shift/ night work?

☐   ☐   ☐   ☐   ☐   ☐

Never   Rarely Sometimes Often Always N/A

    d) When you are not working (rest days /vacations)?

☐   ☐   ☐   ☐   ☐   ☐

Never   Rarely Sometimes Often Always N/A

2. How often are you awake for more than 30 minutes within your main sleep period? (Tick off one alternative on each line)

a) When you are working day shift/ ordinary day work?

☐　　☐　　☐　　☐　　☐　　☐

Never　　Rarely　Sometimes　Often　Always　N/A

b) When you are working evening shift / evening work?

☐　　☐　　☐　　☐　　☐　　☐

Never　　Rarely　Sometimes　Often　Always　N/A

c) When you are working night shift / night work?

☐　　☐　　☐　　☐　　☐　　☐

Never　　Rarely　Sometimes　Often　Always　N/A

d) When you are not working (rest days / vacations)?

☐　　☐　　☐　　☐　　☐　　☐

Never　　Rarely　Sometimes　Often　Always　N/A

3. How often have you woken up more than 30 minutes earlier than you wished, without being able to fall asleep again? (Tick off one alternative on each line)

a) When you are working day shift /ordinary day work?

☐　　☐　　☐　　☐　　☐　　☐

Never　　Rarely　Sometimes　Often　Always　N/A

b) When you are working evening shift/ evening work?

☐　　☐　　☐　　☐　　☐　　☐

Never　　Rarely　Sometimes　Often　Always　N/A

c) When you are working night shift/night work?

☐　　☐　　☐　　☐　　☐　　☐

Never	Rarely	Sometimes	Often	Always	N/A

d) When you are not working (rest days / vacations)?

☐	☐	☐	☐	☐	☐
Never	Rarely	Sometimes	Often	Always	N/A

4. How often have you not felt adequately rested following sleep? (Tick off one alternative on each line)

a) When you are working day shift/ordinary day work?

☐	☐	☐	☐	☐	☐
Never	Rarely	Sometimes	Often	Always	N/A

b) When you are working evening shift/evening work

☐	☐	☐	☐	☐	☐
Never	Rarely	Sometimes	Often	Always	N/A

c) When you are working night shift/night work?

☐	☐	☐	☐	☐	☐
Never	Rarely	Sometimes	Often	Always	N/A

d) When you are not working (rest days /vacations)?

☐	☐	☐	☐	☐	☐
Never	Rarely	Sometimes	Often	Always	N/A

5. How often have you been tired/sleepy at work? (Tick off one alternative on each line)

a) When you are working day shift/ordinary day work?

☐	☐	☐	☐	☐	☐

Never   Rarely Sometimes Often Always N/A

b) When you are working evening shift/evening work?

☐   ☐   ☐   ☐   ☐   ☐

Never   Rarely Sometimes Often Always N/A

c) When you are working night shift/night work?

☐   ☐   ☐   ☐   ☐   ☐

Never   Rarely Sometimes Often Always N/A

6. How often have you been tired/sleepy on your free time (time out of work) on workdays? (Tick off one alternative on each line)

a) When you are working day shift/ordinary day work?

☐   ☐   ☐   ☐   ☐   ☐

Never   Rarely Sometimes Often Always N/A

b) When you are working evening shift/evening work?

☐   ☐   ☐   ☐   ☐   ☐

Never   Rarely Sometimes Often Always N/A

c) When you are working night shift/night work?

☐   ☐   ☐   ☐   ☐   ☐

Never   Rarely Sometimes Often Always N/A

7. How often have you been tired/sleepy on rest days/on vacation? (Tick off one alternative)

☐   ☐   ☐   ☐   ☐   ☐

Never   Rarely Sometimes Often Always N/A

Work/Nonwork Interference and Enhancement measure

Respondents must indicate the frequency with which they have felt a particular way during the last 3 months using a 5-point scale: 0 (not at all), 1 (rarely), 2 (sometimes), 3 (often), and 4 (almost all of the time).

1. I come home from work too tired to do things I would like to do.

0	1	2	3	4
Not at all	Rarely	Sometimes	Often	Almost all the time

2. My job makes it difficult to maintain the kind of personal life I would like.

0	1	2	3	4
Not at all	Rarely	Sometimes	Often	Almost all the time

3. I often neglect my personal needs because of the demands of my work.

0	1	2	3	4
Not at all	Rarely	Sometimes	Often	Almost all the time

4. My personal life suffers because of my work.

0	1	2	3	4
Not at all	Rarely	Sometimes	Often	Almost all the time

5. I have to miss out on important personal activities due to the amount of time I spend doing work.

0	1	2	3	4
Not at all	Rarely	Sometimes	Often	Almost all the time

6. My personal life drains me of the energy I need to do my job.

0   1   2   3   4

Not at all   Rarely   Sometimes   Often   Almost all the time

7. My work suffers because of everything going on in my personal life.

0   1   2   3   4

Not at all   Rarely   Sometimes   Often   Almost all the time

8. I would devote more time to work if it weren't for everything I have going
   on in my personal life.

0   1   2   3   4

Not at all   Rarely   Sometimes   Often   Almost all the time

9. I am too tired to be effective at work because of things I have going on in my
   personal life.

0   1   2   3   4

Not at all   Rarely   Sometimes   Often   Almost all the time

10. When I'm at work, I worry about things I need to do outside work.

0   1   2   3   4

Not at all   Rarely   Sometimes   Often   Almost all the time

11. I have difficulty getting my work done because I am preoccupied with
    personal matters at work.

0   1   2   3   4

Not at all   Rarely   Sometimes   Often   Almost all the time

12. My job gives me energy to pursue activities outside of work that are important to me.

0	1	2	3	4
Not at all	Rarely	Sometimes	Often	Almost all the time

13. Because of my job, I am in a better mood at home.

0	1	2	3	4
Not at all	Rarely	Sometimes	Often	Almost all the time

14. The things I do at work help me deal with personal and practical issues at home.

0	1	2	3	4
Not at all	Rarely	Sometimes	Often	Almost all the time

15. I am in a better mood at work because of everything I have going for me in my personal life.

0	1	2	3	4
Not at all	Rarely	Sometimes	Often	Almost all the time

16. My personal life gives me the energy to do my job.

0	1	2	3	4
Not at all	Rarely	Sometimes	Often	Almost all the time

17. My personal life helps me relax and feel ready for the next day's work.

0	1	2	3	4
Not at all	Rarely	Sometimes	Often	Almost all the time

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly?

$$0 \quad 1 \quad 2 \quad 3 \quad 4$$

2. In the last month, how often have you felt that you were unable to control the important things in your life?

$$0 \quad 1 \quad 2 \quad 3 \quad 4$$

3. In the last month, how often have you felt nervous and "stressed"?

$$0 \quad 1 \quad 2 \quad 3 \quad 4$$

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

$$0 \quad 1 \quad 2 \quad 3 \quad 4$$

5. In the last month, how often have you felt that things were going your way?

$$0 \quad 1 \quad 2 \quad 3 \quad 4$$

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

$$0 \quad 1 \quad 2 \quad 3 \quad 4$$

7. In the last month, how often have you been able to control irritations in your life?

$$0 \quad 1 \quad 2 \quad 3 \quad 4$$

8. In the last month, how often have you felt that you were on top of things?

$$0 \quad 1 \quad 2 \quad 3 \quad 4$$

9. In the last month, how often have you been angered because of things that were outside of your control?

$$0 \quad 1 \quad 2 \quad 3 \quad 4$$

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

0	1	2	3	4

Qualitative Analysis – Semi Structured Interview

This study is interested in looking at the effects of shift work on social life and stress. Additionally, the study aims to gain an insight into the impact of roster schedule on stress and social life

1. How does working the shift work have an effect on your life outside of work?

2. We are interested in learning about how working the shift work may have an impact on your home, family, and/or social life. What has been your experience?

3. How do you take care of family, home, or social issues affected by working shift work?

4. Think back to the time when you first began working on the shift work. What were your thoughts then and now about your personal and home life?

5. What outside of work concerns do you have now?

6. If you are experiencing any difficulties, what can be done to make things better?

7. What advice would you give to anyone that is about to begin a job on with shift work as to how to best take care of personal/social/family issues?

8. What recommendations could you provide for that new staff family, friends, or significant others?

9. If you were an administrator at an institution employing staff on the shift work, what types of services would you offer to make life outside of work better?

10. How often do you receive your roster? How do you feel with regards to this schedule i.e. is it enough notice?

11. Is your roster flexible i.e. can you choose your hours?

12. How does this scheduling impact on your life outside of work?

13. Do you think anything could be done with roster schedule to improve your life outside of work?

14. What advice if any would you give to management regarding roster scheduling?

How does working the shift work have an effect on your life outside of work?

I definitely think it effects my life out of work. I am out of sync with my family and friend's daily life so I generally feel left out because I don't have a lot of quality time with my family, friends and girlfriend because they all work 9-5 jobs. I also find that from working a range of different shifts I am constantly tired and I get moody over the smallest things so I end up ruining the little quality time I have with people. Also, as I work a variety of shifts so I end up sleeping at random times like during the day so I miss out on meeting up with people because I am asleep.

We are interested in learning about how working the shift work may have an impact on your home, family, and/or social life. What has been your experience?

I find that I miss out on attending events like birthdays. Also, I can't take part in hobbies because I don't have a set work week so I can't go to training and I've had to quit my rugby which is a real passion of mine.

If I want to plan holidays I have to make sure that I am planning them really far in advance and make sure that they don't clash with certain busy times in the hotel.

How do you take care of family, home, or social issues affected by working shift work?

I try to devote as much of my time off to seeing as many people as possible. I try to spend at least one evening a week with my friends so I don't fall out of touch with them but this is not always the case. Sometimes it may be a couple of weeks until we see each other. I call my family / girlfriend when I get a chance on my lunch break and I try eat dinner with my family as much as possible but in reality, it's really difficult to do because sometimes I don't get a lunch break.

Think back to the time when you first began working on the shift work. What were your thoughts then and now about your personal and home life?

When I first began shift work I was really worried because everyone who was training me in told me to get used to not getting used to shift work. It was really difficult at the beginning because I had to really try to organise my life as much as possible and I was constantly tired so I wasn't great to be around because I was always really snappy. Now I have learnt a few ways to make it better but it still is a struggle to not be moody and stressed from it.

What outside of work concerns do you have now?

My main concern outside of work now are the breakdown of relationships with my girlfriend, friends and family. I worry that people will get fed up with me not being available. I am also really stressed that because I cannot commit to

training and I am starting to gain weight. Also, the fact that we don't get breaks and just have to eat as we go doesn't help at all.

If you are experiencing any difficulties, what can be done to make things better?

Shift work is mentally and physically draining. I can feel very stressed but when I start to feel like this I talk to my family and girlfriend about my concerns which makes it better because I'm not bottling it all up and they give really good advice. I think I just need reassurance that people won't get fed up with my unavailability.

What advice would you give to anyone that is about to begin a job on with shift work as to how to best take care of personal/social/family issues?

The best advice I could give people who are about to begin in a job of shift work is to try eat as healthy as possible because shift work makes you lazy and gain weight. And get used to not getting used to it. I know that's terrifying to say and it scared me but it is so true.

I would recommend everyone to invest in blackout blinds because chances are you will be going to sleep when it's bright out.

What recommendations could you provide for that new staff family, friends, or significant others?

I would probably just give the same advice as I already said but to look at the senior members of staff and you can see they don't look happy so don't make it your permanent job because you will end up miserable.

If you were an administrator at an institution employing staff on the shift work, what types of services would you offer to make life outside of work better?

I would give free tickets to events happening outside of work. I would also give out free earplugs so staff can sleep without disruption when the rest of their family is up and about doing stuff and they're only going to sleep. I would also tell managers to make staff to go on breaks and to give longer than 30 minutes because in the hospitality industry staff work a minimum of 10 hour shifts and get no breaks or a max of 30 minutes but I don't think this is long enough when you're on your feet all day.

How often do you receive your roster? How do you feel with regards to this schedule i.e. is it enough notice?

3 days in advance each week. It's definitely not enough notice because I can never make plans until last minute and I am always in limbo about if I can go. I generally have to pull out at last minute which leads everyone getting annoyed at me.

Is your roster flexible i.e. can you choose your hours?

No not in the slightest. I have been denied time I requested off from people calling in sick or if I have booked holidays and I am just at home I could still get called in and they tell me they'll give me my holidays another time.

How does this scheduling impact on your life outside of work?

It makes it very hard to plan time with friends and family. It is even harder when I have other commitments outside of work like training and matches. I always end up benched for matches because I can't go training so it's really annoying.

Do you think anything could be done with roster schedule to improve your life outside of work?

Maybe try give the roster a month in advance so that I can try to plan my life and have some organisation. At least I'll know what days I can go training.

What advice if any would you give to management regarding roster scheduling?

More notice should be given. Like I said a monthly roster. Everyone should also get 1 weekend off a month. Also, if there are too many people in work when it's not busy people should be sent home. I think most importantly there should be a cap on hours people work a month as the better members of staff get worked into the ground of 50+ hours a week.

How does working the shift work have an effect on your life outside of work?

I generally work 4 days a week with 3 days off, so it doesn't necessarily clash with my life outside of work. But August is a very busy month in the hotel, so sometimes I could be working 10 days in a row which is very tough. It's tough on me physically because the job is very physical, making beds, dusting all around the room and so on. I find it sometimes clashes with my social life. If my friends are going out at the weekend and I've to work the Sunday I wouldn't go out with them unless I got cover for the following day. But not many people are trained in what I do, so the chances of that happening are very slim.

We are interested in learning about how working the shift work may have an impact on your home, family, and/or social life. What has been your experience?

I'm 22 and in college, so working shift work does have an impact on me. This year especially it has tested my organisation skills. Before this I would leave things to do last minute but now I have to get things done in advance. It only really affects my social life, as I said already.

How do you take care of family, home, or social issues affected by working shift work?

I'm working with the hotel for 5 years now, so I'm used to getting my rota a week before the week scheduled. But because I am there so long and if I know some event or occasion is on I can ask my boss to give me the later shift on the Sunday or

whatever suits. She generally does this because I would always work when they are badly stuck, even with less than 12-hour notice. I would say my relationship with my manager is good, so it makes shift work a lot easier when balancing it with my social life.

Think back to the time when you first began working on the shift work. What were your thoughts then and now about your personal and home life?

I first started shift work in 1st year of college. Everything seemed a little frightening and the thoughts of working shift work was daunting at the start because I didn't know how to balance it and college assignments and it challenged my organisation skills. But like everything else in life, practice makes perfect.

What outside of work concerns do you have now?

The main concerns that I would have outside of work definitely are college work and making sure I spend time enough time with my family and friends. The thoughts of job hunting at the end of August really concerns me, I fear that I won't get one because I don't have any experience in the field.

If you are experiencing any difficulties, what can be done to make things better?

I would suggest exercise it makes everything better, even yoga meditation or any form of exercise, just to clear the mind from work and from college assignments. If someone is experiencing any difficulties at work, I would suggest to tell someone, even a family member, by talking about it is a relief in itself. If you bottle up problems they just get worse. I know this from first-hand experience.

What advice would you give to anyone that is about to begin a job on with shift work as to how to best take care of personal/social/family issues?

I think time plays a significant role. Someone starting off would have to give the job at least 2/3 weeks until they develop a routine. When they this they can fit their personal, social and family issues around it. I would suggest going in with a positive attitude and be nice to those around you, there is a lot of people in the same boat, when you make friends at work life becomes a lot better.

What recommendations could you provide for that new staff family, friends, or significant others?

Positivity, for the family and friends of the new staff member to be there for them. Ask them how their day went, offer advice and help when they need it. Check in on them regularly to see how they're managing the balance of it all.

If you were an administrator at an institution employing staff on the shift work, what types of services would you offer to make life outside of work better?

I think social events and team-building events like bowling, gym membership, and a subsided canteen would definitely make life better because everyone can bond.

How often do you receive your roster? How do you feel with regards to this schedule i.e. is it enough notice?

I get my roster the Saturday before the new week which is very late because I can't make plans for the coming week until I get the roster which is very frustrating. But as like I said if there's something on that I want to attend, I just say it to my boss to

see if we can work around it. Sometimes she can, sometimes she can't. I am there 5 years so I am used to it by now.

Is your roster flexible i.e. can you choose your hours?

Sort of but that's only because I've been there 5 years. Like I can't choose my hours but I can go to my boss and ask for a day off.

How does this scheduling impact on your life outside of work?

It affects my life outside of work during the summer months when my friends are off and want to do things. Like I can't plan a trip away last minute, I have to request for that time off 2 months in advance. I remember one time I booked flights away for 3 nights in April thinking gosh I worked all year round surely she can give me a few days off, but she couldn't and I lost all the money spent on flights and accommodation. That really annoyed me at the time, but I now know never to book anything until 100% confirmed I can get the time off.

Do you think anything could be done with roster schedule to improve your life outside of work?

I know she does to a draft rota 3 weeks in advance but never shows it to the workers in case sales increase or decrease. In the hotel industry I don't think there is anything she can do, like if she did produce the rota 3 weeks in advance, by that week, sales may have dropped by 150 and she would have to leave 4 to 5 employees off for that day.

But she always has about 2 employees on standby for certain days and we don't know until the morning whether she needs us or not. If we aren't needed we don't even get paid which is really annoying because we can't make plans until we get a call from her.

What advice if any would you give to management regarding roster scheduling?

Depending on the job, get the roster done as early in advance for the workers. If they have any preferences for early or late shifts try give this to them. And definitely have paid standby days.

How does working the shift work have an effect on your life outside of work?

I never ever know my hours and all my friends work Monday to Friday so they go out every weekend but I can't and always miss out because I have to work weekends you can't just work Monday to Friday in a Hotel. We have to be available 24/7.

We are interested in learning about how working the shift work may have an impact on your home, family, and/or social life. What has been your experience?

I think it does impact my life because as I already said I'm forever having to miss out on things with my friends because they go out all the time on weekends and I work. I also have to miss out on family activities too if they are last minute plans like family BBQ's. I feel stressed by telling my friends I'm unavailable all the time because I don't want them to stop inviting me out and I get worried that even when I book off important events I won't get it off because of block out dates like the Christmas season.

How do you take care of family, home, or social issues affected by working shift work?

I just let everyone know that with my work it is almost impossible to plan. I try make it to as many things as possible but unfortunately, I can't really take care of it.

Think back to the time when you first began working on the shift work. What were your thoughts then and now about your personal and home life?

I thought it was the best thing ever because I loved everyone I worked with and they were all my best friends but after a couple of years and everyone moved to 9-5 work I can't meet up with them now so I am hating it because I have no life and feel lonely.

What outside of work concerns do you have now?

I am currently in college so I get very stressed by not being able to plan my week and having to work varying shifts so it's very difficult to get college work done.

If you are experiencing any difficulties, what can be done to make things better?

Maybe working a compressed work week or giving more flexibility in shifts. So, to make them more individual specific. But having said that I guess it would be very difficult to do because weather, sports, events and so on all impact the peak levels so were called in as needed. But ideally, I would like some type of format in my life.

What advice would you give to anyone that is about to begin a job on with shift work as to how to best take care of personal/social/family issues?

Good Question. I would say to think carefully especially if you have a lot going on in your personal life because working in hospitality is a 24/7 job you can't just switch off. Even on your days off you could get a phone call to come in, to ask about an issue for the day previous. Also, your roster finishing time is just guideline because it is very very rare to finish at the time it is generally an hour or two later. Apart from that I would recommend everyone to work in hospitality for at least a year

because it is the making of you and although it is very difficult and consumes your life you definitely learn valuable life skills like respect.

What recommendations could you provide for that new staff family, friends, or significant others?

To try and understand that we do want to meet up it's just very difficult. That's why there are so many memes on Facebook joking about how difficult it is for friends to meet up.

If you were an administrator at an institution employing staff on the shift work, what types of services would you offer to make life outside of work better?

I'd try give all staff a weekend off every so often so that they could meet up with whoever they like. I would also try and put flexibility into the roster and make them individual.

How often do you receive your roster? How do you feel with regards to this schedule i.e. is it enough notice?

I get my roster less than 3 days before my week starts. It's sent to me on a Saturday Night at 11pm for the work week beginning on the Monday. I think that this is far too little time because I don't have time to plan anything at all so I have to say no to all plans until I know on a Sunday Morning. It's really annoying because not only do I not know what days I'm working but I also don't know what shift I'm working like I could be working all lates all earlies or a variation. Like a lot of the times I could be in until 1am or later and back in at 10am.

Is your roster flexible i.e. can you choose your hours?

No not at all. If I need a day off I have to put the request in writing and wait for a reply. If I need a different shift type I have to try swap shifts with other members of staff but this is not always possible.

How does this scheduling impact on your life outside of work?

It has a huge effect. I never get to plan and I miss out on so many activities. It really impacts my life and my mental health as I feel upset when I see all the pictures on Instagram or when my friends talk about the night out. I also feel like it is creating a barrier between me and my friends because I am not included in their inside jokes and lately they've stopped inviting me saying that they knew I wouldn't be free

Do you think anything could be done with roster schedule to improve your life outside of work?

Yes, I should get it like 2 weeks in advance and to be able to have some degree of flexibility.

What advice if any would you give to management regarding roster scheduling?

Management should issue the roster 2 weeks in advance and allow employees to email them if they need to have something adjusted. I'm not saying management have to cater for all these adjustments but that they should just try their best to help people out so that they can have somewhat of a life because that's why the hospitality industry has such a high turnover because you have no life and have so much stress from missing out and not being able to get things done.

How does working the shift work have an effect on your life outside of work?

I work random hours and days and only get my roster 1 week in advance so I am rarely able to plan anything and if plans are made I'm either working or I am far too tired to go because I will have worked god knows how many hours on my feet.

We are interested in learning about how working the shift work may have an impact on your home, family, and/or social life. What has been your experience?

I can definitely say that working shift work leads to a lot of conflict at home because I could come home at 3am and I don't think I am being noisy but apparently, I am and I wake at least one person up in the house. Then when I am asleep and they're all up they're really noisy and end up waking me up so there are a lot of arguments.

How do you take care of family, home, or social issues affected by working shift work?

Yeah, these issues are rarely resolved because they happen over and over again every time I work a night shift.

Think back to the time when you first began working on the shift work. What were your thoughts then and now about your personal and home life?

From the get go my personal life was affected. It was more so just my social life though because I didn't know how to even attempt to plan my life around all my crazy hours. As time went on my home life started to become affected because I hardly get to see my family.

What outside of work concerns do you have now?

My concerns may seem stupid and spoilt to others but the constant washing of uniforms at ridiculous hours, unable to maintain healthy eating habits and irregular sleep patterns became more than just an annoyance and is beginning to affect my general mood, making me extremely agitated at everyone and everything.

If you are experiencing any difficulties, what can be done to make things better?

I think a manager need to listen to staffs concerns and definitely try to make a roster more personal and not so rigid.

What advice would you give to anyone that is about to begin a job on with shift work as to how to best take care of personal/social/family issues?

 I honestly think the most important thing is to try to get the recommended 8 hours of sleep a day but do not sleep any more than this or stay in bed even though you will be extremely tired. If you do you'll just isolate yourself.

What recommendations could you provide for that new staff family, friends, or significant others?

I think that if the person who is working shift work says they're exhausted accept it and don't be so hard on them because their job is very tough. I think family and friends should support them and try make home life easier for them.

If you were an administrator at an institution employing staff on the shift work, what types of services would you offer to make life outside of work better?

I would definitely enforce strict lunch and coffee breaks as these are always over looked and forgotten about during busy times. You are generally laughed at and judged if you ask to go on your break as if it is an alien concept so 99% of the time you don't get one unless it is dead but that is very rare.

How often do you receive your roster? How do you feel with regards to this schedule i.e. is it enough notice?

I get my roster every Thursday for the following week. I don't think this is enough time to plan anything and having said that the roster changes throughout the week anyway so I wouldn't even say I receive it on Thursday more so Sunday.

Is your roster flexible i.e. can you choose your hours?

Semi flexible, we cannot choose our hours but we can swap shifts as long as all shifts are covered.

How does this scheduling impact on your life outside of work?

I think it makes planning my personal life very difficult as I constantly feel my friends and family are changing their plans to fit me and I worry that this is going to cause strain and conflict.

Do you think anything could be done with roster schedule to improve your life outside of work?

A one-month roster would relieve a lot of stress but I am aware this is unrealistic because it would be changed regularly regardless. So maybe even if they could do a 2 week roster it would be some help.

What advice if any would you give to management regarding roster scheduling?

I would suggest that management ask employees to put forward the days they

need off for the month and try to accommodate this as best as possible and I think

after this it should not be changed unless there is an emergency.

How does working the shift work have an effect on your life outside of work?

Shift work makes it very difficult to be able to plan my social life like going to family and friend's events. I've found lately that my family are getting frustrated with me and my friend's stop inviting me because they just presume I won't be able to go.

We are interested in learning about how working the shift work may have an impact on your home, family, and/or social life. What has been your experience?

I have children so it's disruptive to their day. I can't always make school events like plays so my children always end up being upset. I generally always have to miss out on family events like St Stephens day so they get quite annoyed because Christmas is supposed to be a family time. As I already said I find that friends have stopped inviting me because they just automatically think I am working. Because I not always invited I've actually started to feel isolated.

How do you take care of family, home, or social issues affected by working shift work?

I have to rely on my partner and family to take care of the children which puts extra pressure on them during their free time it actually stresses me out because I don't want them to get pissed off. Like I know my children are their family but I don't want to constantly be burdening them.

Think back to the time when you first began working on the shift work. What were your thoughts then and now about your personal and home life?

I thought it would give me more time to spend with my family and have more personal time but it is the total opposite as I always seem to have to work during everyone else's sociable times.

What outside of work concerns do you have now?

That I will miss out on the key events with my children, family and friends.

If you are experiencing any difficulties, what can be done to make things better?

It would be great if employers allowed staff to have one weekend on and one weekend off so that we had some time to spend with our family and friends.

What advice would you give to anyone that is about to begin a job on with shift work as to how to best take care of personal/social/family issues?

I would advise them to make sure they had it in their contract that they had at least one weekend off per month to ensure having time to spend with your family and friends.

What recommendations could you provide for that new staff family, friends, or significant others?

To understand exactly what is involved with Shift Work and then not be disappointed when you cannot be around when they are off work. Also, to be on hand to help out with household duties and minding the children.

If you were an administrator at an institution employing staff on the shift work, what types of services would you offer to make life outside of work better?

I would ensure my staff had at least one weekend in every month off to spend time with their family and friends. I would also put in place a family day where the staff can participate in a BBQ at the Company and allow staff to stagger their time between working and spending time with the family during the BBQ or Family Day Event.

How often do you receive your roster? How do you feel with regards to this schedule i.e. is it enough notice?

Sometimes I only get 3 days before I'm due to start my first shift. This means I can't plan any personal time or I have to cancel any events I have already said I will go to. It would be nice to get my Roster at least 2 weeks so I have time to put plans in place for my own personal time.

Is your roster flexible i.e. can you choose your hours?

No, we are required to work as and when we are needed.

How does this scheduling impact on your life outside of work?

As I already said I can't plan my life, I have to miss out on social events and I have to burden my family last minute to mind my kids.

Do you think anything could be done with roster schedule to improve your life outside of work?

Yes, I don't think it's unreasonable to give staff their roster 2 weeks' notice. Most

of the time staff are required for work during large sporting events and notice of

dates and times of when these will be on is given well in advance of 2 weeks so why

can't the roster be.

What advice if any would you give to management regarding roster scheduling?

To make the roster 2 weeks in advance and give 1 weekend off per month.

How does working the shift work have an effect on your life outside of work?

Because I only get my roster a week in advance I find it difficult to organise past times or trying to make plans for weekends with my friends. Also, if I have a late shift one day sometimes ending at 10.30pm I could have an early shift that starts at 7or 8 the next morning, which I find really tough because I can't switch off after the late shift for a few hours and then I have a broken sleep before the early shift making me feel exhausted and moody the next day.

We are interested in learning about how working the shift work may have an impact on your home, family, and/or social life. What has been your experience?

I do find that working the shift work my mood changes depending on what shift I get. I will be really tired and I'll get annoyed at my family over silly comments. I find it very hard to meet my friends at times because they have normal working hours. Sometimes because of my shift work I become very tired and know that I'm on the early shift the next morning that I don't meet my friends just so I can get an early night.

How do you take care of family, home, or social issues affected by working shift work?

Organising social events in advance and trying to change shifts with somebody would be the main things I do.

Think back to the time when you first began working on the shift work. What were your thoughts then and now about your personal and home life?

When I first started working on shift work I was getting frustrated as I used to train

a lot and I had to give it up because of my shift work but now I can work around it

because I go to the gym. I remember that I felt I never got to see my family but now

my shifts are better and I see them a lot.

What outside of work concerns do you have now?

When am I able to book in my past times or go to the gym.

If you are experiencing any difficulties, what can be done to make things better?

In work they can put the roster up 2 weeks in advanced which would give everyone

time to organise their social lives.

What advice would you give to anyone that is about to begin a job on with shift

work as to how to best take care of personal/social/family issues?

Be prepared that you may have to give up your hobbies and don't let the

management walk all over you. Just make sure that you try to make time on your

days off to meet friends and family.

What recommendations could you provide for that new staff family, friends, or

significant others?

Be patient, at the start of a new job with shift work the management give you the

worst hours but as you build relationships with them they give better hours.

If you were an administrator at an institution employing staff on the shift work,

what types of services would you offer to make life outside of work better?

Definitely social events for staff to boost morale. This will make them get to know

each other and build close bonds.

How often do you receive your roster? How do you feel with regards to this schedule i.e. is it enough notice?

I get it 1 week before my shift. It's not enough notice, we should get it at least 2 weeks in advance.

Is your roster flexible i.e. can you choose your hours?

In some ways like I can tell them what days I can't do and they tend to try work around it.

How does this scheduling impact on your life outside of work?

Mine at the moment is the best it's been in a long time so it doesn't have much of an impact on my life outside of work.

Do you think anything could be done with roster schedule to improve your life outside of work?

Getting it 2 weeks in advance so I will have more time to plan.

What advice if any would you give to management regarding roster scheduling?

If they get it done early could they put it up quicker. And the people that aren't in college who are free Monday - Friday they should get those hours and the part time staff should get the weekend hours.

How does working the shift work have an effect on your life outside of work?

I find it very difficult to make plans to see my friends or do any type of social activities because of the short notice of what hours I will be working. I can't make plans in advance and makes me feel like my life revolves around work.

We are interested in learning about how working the shift work may have an impact on your home, family, and/or social life. What has been your experience?

I may only see my family for an hour late at night when I arrive home and maybe catch a glimpse of them in the morning because I will be sleeping in from working late shifts. I also never get to join in family meals and my social life is strained as I cannot give notice of when I will be available.

How do you take care of family, home, or social issues affected by working shift work?

Whenever I get a spare chance I like to sit down and properly talk with my parents, family, friends, and boyfriend about any important things.

Think back to the time when you first began working on the shift work. What were your thoughts then and now about your personal and home life?

When I began working shift work, I felt like my life was over. I didn't understand how I would enjoy my free time if I didn't even know when I was going to have it in the first place. I am quite used to it now and motivate myself by the money aspect and look at any extra hours as extra income in a positive light. But shift work has

certainly made me appreciate any free time I have so much more. I enjoy any free time I have with my friends or boyfriend and I don't feel guilty spending money because I feel like I have earned it.

What outside of work concerns do you have now?

I worry about my diet and my lack of exercise because I am so tired so I can't prepare meals at home even when I have the time.

If you are experiencing any difficulties, what can be done to make things better?

Take more time to organise meals and time for exercise as opposed to sleeping all the time.

What advice would you give to anyone that is about to begin a job on with shift work as to how to best take care of personal/social/family issues?

Just to prepare for a bit of a shock because it is definitely a different way of living. But, it will result in the little things in life being appreciated so much more.

What recommendations could you provide for that new staff family, friends, or significant others?

To be patient with the lack of spare time and ability to organise social outings and be prepared to have to act spontaneously in terms of going out or spending time together when you can.

If you were an administrator at an institution employing staff on the shift work, what types of services would you offer to make life outside of work better?

Better staff meals. When working shift work your meal plan can definitely be compromised due to awkward and sometimes very long hours. We need proper food to get us through this and I personally believe that proper diet is the first thing to be sacrificed when working shift work.

How often do you receive your roster? How do you feel with regards to this schedule i.e. is it enough notice?

Sometimes I get a roster that is set for the next three weeks, but then any given shift could be changed even the day before. Then sometimes I may not get a roster until the day before I am due to commence the next week's work. It is very inconsistent.

Is your roster flexible i.e. can you choose your hours?

No not at all. I have to work the shifts on my roster that my manager decides.

How does this scheduling impact on your life outside of work?

It is difficult because every little thing in your life is planned to fit around your roster.

Do you think anything could be done with roster schedule to improve your life outside of work?

If you could pick your two days off it would definitely make my life easier. I could then know what days I can go training and see people.

What advice if any would you give to management regarding roster scheduling?

To understand that employees have lives as well so be facilitating where they can to

a certain extent. Employees want hours but they also need to try and balance a

work life with a healthy balanced social life if they want to offer their best standard

of work.

How does working the shift work have an effect on your life outside of work?

It affects my outside life quite a lot because I can't plan my personal life in advance because my roster is not flexible at all and I work varying hours.

We are interested in learning about how working the shift work may have an impact on your home, family, and/or social life. What has been your experience?

I can never ever plan with my friends who all work 9-5 because I work lots of different days. At the moment at home it is just me so I don't have issues at home but I find it difficult to see my friends.

How do you take care of family, home, or social issues affected by working shift work?

At the moment it is only myself but I can only take care of my home on a day by day basis because I don't know what shifts I am working and I am always exhausted.

Think back to the time when you first began working on the shift work. What were your thoughts then and now about your personal and home life?

I thought I would be able to plan better my life outside work but because I only receive my roster only a week in advance I find myself not being able to plan at all sometimes.

What outside of work concerns do you have now?

I don't get to see family often above all being an expat I can't plan my holidays or flights to go home and sometimes they become expensive if booked last minute.

If you are experiencing any difficulties, what can be done to make things better?

I would like to receive my roster in advance and also get more flexibility in changing my shifts this would at least make me be able to see my friends.

What advice would you give to anyone that is about to begin a job on with shift work as to how to best take care of personal/social/family issues?

Try to find a schedule on a daily basis for each of time off as I can't plan a schedule in advance.

What recommendations could you provide for that new staff family, friends, or significant others?

Try to find your own schedule and plan on a day by day basis instead of planning long term and plan carefully your time off. They should be also be understanding of us working shift work.

If you were an administrator at an institution employing staff on the shift work, what types of services would you offer to make life outside of work better?

I would definitely offer more flexibility in hours and shifts, maybe I would give the same shift for the whole week at least then I can plan the whole week and not on a daily basis.

How often do you receive your roster? How do you feel with regards to this schedule i.e. is it enough notice?

I always receive my roster one week in advance so no it is not enough notice for the unsociable reason that I have already mentioned like not being able to plan.

Is your roster flexible i.e. can you choose your hours?

No, I can't choose my hours I work what I am given.

How does this scheduling impact on your life outside of work?

It takes time from my social life and my time off because I don't know if I can go to things.

Do you think anything could be done with roster schedule to improve your life outside of work?

Having the roster in advance or maybe give the same shift for a longer period and then rotate with the other staff members it would help because at least I could somewhat plan.

What advice if any would you give to management regarding roster scheduling?

Give the roster move in advance and hold the same shifts. Also, be flexible to everyone's needs.

How does working the shift work have an effect on your life outside of work?

Working a shift has a big impact on my life outside of work, I can never make plans with friends or family until I receive my roster and I always miss a lot of small events and sometimes big events like friend's birthdays or nights out because I am working different shifts. I have noticed that it decreased a lot of quality time I spend with friends and even boyfriend because of how tired I am.

We are interested in learning about how working the shift work may have an impact on your home, family, and/or social life. What has been your experience?

I think it has a big impact on my life, I've experienced that my mood has been affected by work, I can't just leave everything that has happened at the door and go home. If I have a bad day at work, if affects my mood at home with my family or friends and often I would cancel plans.

How do you take care of family, home, or social issues affected by working shift work?

It is hard to take care of your personal life, you feel alienated from your family and friends and as I said, you can find yourself starting to feel very lonely. I try to find time or switch up my shifts whenever I can to make time to see friends and even to have time to myself as that is very important.

Think back to the time when you first began working on the shift work. What were your thoughts then and now about your personal and home life?

When I started working shift work I thought it wouldn't be hard to plan my life schedule around my job and I thought not having my evenings off every night wouldn't be as hard as it is. Like even to do the simple tasks such as keeping my room clean is impossible.

What outside of work concerns do you have now?

One of my biggest concerns outside I work I have is that I don't have enough time to enjoy my life with my friends and family as I have said I find myself missing a lot of events or nights out or plans with my friends. My life is consumed by work and I find I'm devoting all my time and effort into it.

If you are experiencing any difficulties, what can be done to make things better?

You could try group your shifts together if you can, keep all of the night shifts or evening shifts together and the same with the days to get yourself into some routine. If not talk to a manger and tell the how you are feeling to see if they can offer any help.

What advice would you give to anyone that is about to begin a job on with shift work as to how to best take care of personal/social/family issues?

If I was to give anyone advice about starting shift work, I would say to try get as much sleep as possible to start, try to have a good diet and try not to skip meals and plan them around your shifts and if you have the time prepare them on your days off.

What recommendations could you provide for that new staff family, friends, or significant others?

As I mentioned before try to give yourself as much time to yourself and try to keep on top off sleep.

If you were an administrator at an institution employing staff on the shift work, what types of services would you offer to make life outside of work better?

I would try offer more staff days such as activities or days out to together to get them to know the other staff members better so they can discuss feelings or even become friends because I personally believe sharing is easier for someone to understand if they are in the same boat.

How often do you receive your roster? How do you feel with regards to this schedule i.e. is it enough notice?

I get my roster once a week at the end of the week, personally I don't think this is enough notice. It would be nice to be given more notice for a roster to plan social events or even schedule appointments.

Is your roster flexible i.e. can you choose your hours?

No, my roster is not flexible, I can request days off but I have to give a few days' notice before the roster is sent out.

How does this scheduling impact on your life outside of work?

It has a big impact on my life outside work, as I've mentioned I do find myself missing out on small events like family dinners or nights out with my friends and also bigger more important events like birthdays. I even find it hard to do simple tasks like scheduling doctor appointments.

Do you think anything could be done with roster schedule to improve your life outside of work?

I think they should give more time to send out a roster and I think it should be a monthly roster, to allow you to plan your life around work.

What advice if any would you give to management regarding roster scheduling?

If I was to give management advice about the roster, I would just say that we aren't robots, we do have friends and family outside of work