

**An Investigation into the effects of work-related travel on a
partnership – Stress Levels, Sleep Quality and Relationship
Structure.**

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Abstract

Objective: The focus of this study is work related travel and in particular the impact that the resulting separation has on the stay-at-home partner. The three core research areas that this study concentrates on are Stress, Sleep Quality and Relationship Structure. Most of the existing core studies and associated literature relate to the US military and also reference the impacts to the stay-at-home partner. This study is comparable with a number exception including that the focus is on non-military Irish population. This study's aim is to identify possible variables that predict effects of work-related travel on a partnership.

Method: This study consisted of 31 participants who are engaged in a co-habiting relationship for more than two years where their partner is involved in work-related travel. These participants were assessed on their perceived stress level, sleep quality and relationship structure as well as gender. The participants were all over the age of 18.

Results: Participants were found to have a high stress levels due to added responsibility, sleep quality decreases due to lack of security and satisfaction among relationship decreases as a result of stress and children, if applicable.

Conclusion: It is important to note work-related travel has an impact on any relationship, while the significance and variables that impact the relationship still need revision.

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1 INTRODUCTION

Work related separation is an important issue facing many families globally. During the last ten years with the economic downturn many individuals found themselves unemployed and apprehensive about their family's future (Kollewe, 2008). This resulted in a significant increase in the number of people having to travel away from the family home to seek and secure employment (O'Connell, 2018). This included a big cohort from Ireland. The economic uncertainty for many people now living in Ireland is a little more stable however work-related travel is still very common. From a review of associated literature there does not appear to be any research focusing on the impact of work related travel separation on the Irish population.

1.1 Work-related Separation

Work-related separation is "an act or instance of separating or the state of being separated due to one's work or job" ("Separation," 2018). Most of the research studies in this area have been conducted in USA, with a few studies based on European countries. The USA literature has been conducted mainly on families with a military background. Whilst these studies are important and informative, they are ungeneralizable to the non-military population because of 1) additional stress due to the danger associated with military deployment, 2) the longer periods of separation affiliated with military deployment and 3) the after effects of war on the deployed family member such as post-traumatic stress disorder (PTSD). However in a more general sense the importance of proximity for sustaining a healthy and stable romantic relationship has also been highlighted in studies.

There have been numerous sociological research studies demonstrating the long standing positive effects associated with 1) a well-functioning romantic relationship and 2) improved psychological well-being (Stack & Eshleman, 1998; Ryff, Singer, Wing & Love, 2001). Regular contact among romantic partners specifically on a day-to-day basis appears to improve affective regulation responses providing them with better skills to cope with any additional stressors present. The ability to regularly communicate with their partner enables the individual to cope with everyday challenges and respond appropriately to stimuli in their environment (Simpson & Rholes, 1994). Some researchers have suggested that regular contact provides opportunities for mutual comfort (Collins & Feeney, 2000).

In this case, theoretically individuals who are involved in long-term relationships should function and feel better when they are regularly together rather than when they regularly apart. Among various cultures this is a consistent finding (Andres, 2014). Partners and individuals engaged in long-term relationships favour living together (Hagemeyer, Schonbrodt, Neyer, Neberich & Asendorpf, 2015). As a result individuals may sacrifice educational plans and career opportunities to enable them to remain close to their partner. Yet in our fast paced and mobile society a periodic physical separation is inevitable. Studies have demonstrated that separations, however brief, can be potentially disorienting and disruptive. As a result of these findings it is particularly important to focus on individuals who are in situations where close proximity is not possible.

Three of the primary findings which, have resulted from the military research and, may be relevant to the general population are the importance of 1) communication, 2) relationship

structure and 3) sense of security. The resultant effects include higher stress levels, lower relationship satisfaction and lower sleep quality.

1.2 STRESS

Stress is defined as 'a state of mental or emotional strain or tension resulting from adverse or demanding circumstances' ("Stress", 2018). An individual's perception of that stress is how they view their capability to deal with the external stressful stimuli.

1.2.1 Military findings

Military life is full of the unexpected which brings about great uncertainty to the individuals involved in this choice of career. Typically in a military family life is expected to stabilise three months after the return of the service member who was away on duty. This may take longer if the service member returns home with physical injuries or trauma including post-traumatic stress disorder which will make readjusting to family routine more difficult (Solomon, Dekel & Zerach, 2008; Allen, Rhoades, Stanley & Markman, 2010).

Numerous studies indicate that couples with children where one of the partners experience altered work schedules have an increased rate of work-family conflict and thus are at greater risk for marital instability (Presser, 2000; Barnett, Gareis & Brennan, 2007).

Very few studies focus on work-related travel and intimate relationships (Roeling & Bultman, 2002), typically these studies focus on shift work and long work shifts. Most research in this area has been conducted on the military population. It has focused on the effects job-induced separation has on the partner's relationship well-being along with their physical and psychological well-being.

Frequently, there has been a negative relationship found between job-induced separation and relationship outcomes (Angrist & Johnson, 2000). However it is important to note that some studies do not support negative effect (Schumm, Bell & Gade, 2000; Call & Teachman, 1991) and have identified positive effects (Karney & Crown, 2007). They address both male and female military who served in Afghanistan where studies found for some the fear of loss and the distance between partners allowed them to cement their relationship through the shared adversity. Furthermore, Rosen, Durand, Westhuis & Teitelbaum (1995) found that two thirds of couples who experience work-induced separation express an increased level of closeness and intimacy when there is a greater level of appreciation and communication.

1.2.2 Non-military findings

While the majority of research in this area has been conducted on military populations, there are a small number of studies conducted on the non-military populations. These studies have mainly focused on the effects work-induced separation has on the partner's relationship along with their physical and psychological well-being. Frequently there are negative links between these which can increase stress between the partners as a result of work-induced separation and relationship outcomes (Angrist & Johnson, 2000).

Sustaining a well-functioning relationship and satisfaction among both parties when work-induced separation is inevitable has challenges. Long term work-induced separation requires relationship restructuring and adjustments to both the partners and their children, if

applicable (White, De Burgh, Fear, & Iversen, 2011; Andres & Moelker, 2011; ; Chartrand, Frank, White, & Shope, 2008; & Chandra et al., 2010). Furthermore, a concern for the well-being of the relationship due to any perceived lack of communication can cause stress on the family. The returning partner can also experience challenges adapting to daily routine and re-establishing structural differences that exist when transitioning from individual to couple (Faber, Willerton, Clymer, MacDermid & Weiss, 2008). Partners may feel as if there is an emotional toll or feelings of detachment and estrangement from each other due to the experiences and/or personal changes that they may have encountered as a result of the separation (Zamperini, Restuccia & Menegatto, 2016).

As work-induced separation is generally viewed as harmful to romantic partners, it may be beneficial to focus on aspects which could enhance relationship satisfaction, such as, partner interaction and social support. Social support can be identified as a crucial coping mechanism in stressful times. Moreover, it has been contended that communication is critical in maintaining intimate relationships, especially during stressful times. It has been demonstrated that close communication between partners enables the development of trust and grants opportunities to support each other (Baptist et al, 2011). Deeper appreciation for their relationship has been attributed to feeling supported and, in turn, closeness contributes to better communication between partners (Rosen et al, 1995).

Further research focuses on the challenges in the realm of work and family with the research focused on work-related separations depending on the concepts proposed by the 'family stress and resilience theory' (Patterson, 2002; McCubbin & McCubbin, 1996). Numerous resilience and stress models have been developed that aim to predict adaptations to stressors in the family. The theory focus on whether the family demonstrates resilience when vulnerable to stress or under pressure (Watson Wiens & Boss, 2006). The build up of stressors in the form of the separation, coinciding with other stressful events, has been identified as an important risk factor to vulnerability. Social support and the partner's perception of these stressors can help form resilience to external stress stimuli.

1.3 SLEEP

Sleep is consistently described as a state of passivity which allows the individual to reorganise their neural activity (Siegel, 2005).

1.3.1 Military findings

The quality and quantity of one's sleep has many consequences for their cognitive performance, motor functioning together with their mental and physical health (Durmer & Dinges, 2005; Benca, Obermeyer, Thisted & Gillin, 1992; Lim & Dinges, 2010 & Strine & Chapman, 2005). However sleep studies frequently find that many working individuals do not get enough sleep and when they are asleep it is poor sleep. A number of studies have indicated that major life stressors are factors to sleep problems (LeBlanc et al, 2009), with insomnia being the most prevalent during adulthood (Colten & Altevogt, 2006).

Military deployment is a major life stressor with research showing that there is a significant impact to a soldiers sleep when they are deployment (Mysliwiec et al, 2013) with partners and other family members also being at risk of poor sleep (Erbes, Meis, Polusny & Arbis, 2012). Multiple studies have been conducted on the partners of soldiers and found that

insomnia was a significant physical result of their partner's deployment (Wexler & McGrath, 1991). Vulnerability to mental health risks includes sleep disturbance and has a higher prevalence among partners of deployed soldiers than those individuals whose partners were not deployed (Mansfield et al, 2010; Burton, Farley & Rhea, 2009). This can result in a myriad of problems including tiredness, irritability, lack of focus and, at times, a reluctance to interact with their surroundings.

Duration of sleep is impacted for the individuals with extremely short durations reported (less than five hours per night) (Holliday, Hass, Shih & Troxel, 2016). Lack of sleep on its own can be a factor in dysfunction and distress but prolonged poor sleep can be a factor in psychiatric disorders and suicidal ideations (Malik et al, 2014). Differing personality traits are a factor as individuals who are more susceptible to negative emotions typically have poorer sleep quality (Baglioni, Spiegelhalder, Lombardo & Riemann, 2010). Throughout the duration of deployment these negative emotions can build-up leading to elevated levels of stress and anxiety.

1.3.2 Non-military findings

The physical act of separation can cause sleep disturbances with bed sharing partners typically reporting poor sleep (Monroe, 1969; Diamond et al, 2008). Moreover, sleep disturbances can manifest themselves in the form of insomnia, low marital satisfaction and as a result conflict tends to develop (Gunn, Troxel, Hall & Buysse, 2014; El-Shekih, Kelly & Rauer, 2013). According to Hasler and Troxel (2010) men experience little impact from poor sleep and this does not tend to impact on daytime relationship functioning or dysfunction. They also note that good sleep will predict a positive interaction with their partner. Sleep has a greater impact on how women function, better sleep quality resulting in less negative interactions.

Throughout the transition brought about due to the work-induced travel, the dynamics of the relationship completely change. Intimacy may have been an aspect of a relationship that had great value which could be impacted by an individual's sleep functioning. Positive and frequent communication between partners may mitigate the negative effects although stress related upsets might still have a negative effect on sleep functioning (Karnery & Crown, 2007; Diamond et al, 2008).

Lack of sleep can lead to potentially harmful behaviour such as increased mental health symptoms and greater consumption of alcohol. Women whose co-habiting partner frequently travels can increase the likelihood of them engaging in binge drinking (Fuller, 2010). This may occur for numerous reasons such as a lack of social responsibility when their partner is not present (Fuller, 2010). The same results have not been found within the male population. According to Diamond et al (2008) there was a reported decrease in positive effects of the relationship and an increase in the negative effects of the relationship among the female population during work-related separation.

Similar results were found, when a study looked at alcohol through a self report measure. The results showed a consistent misuse of alcohol and low relationship satisfaction from partners (Erbes, Kramer, Arbisi, DeGarmo & Polusny, 2017). Low self disconnect which is a form of cognitive dissonance, the feeling of harbouring contradiction beliefs is also common result. Despite the theories, the research surrounding this area is limited. The majority of

the research focuses on the studies as a cross-sectional, with no pre work separation measures taken. Resultant effects decrease relationship satisfaction.

1.4 RELATIONSHIP STRUCTURE

Relationship structure refers to a set of agreements, rules, and titles that define the framework of a relationship. A clearly defined relationship structure where all participants know what is expected of them and what is permitted within the bounds of the relationship is important (“Relationship”, 2018) (“Structure”, 2018).

1.4.1 Military findings

Inevitably a work-induced separation puts stress on partnerships. The age of the partners, children, the length of the separation, relocation and being part of the military are all notable stressors (Ramos & Ginburg, 1997; Rosen & Durand, 2000). Within military situations combat, by its very nature, is enforced separation (Ruger, Wilson & Waddoups, 2002). Reunions upon completion of a mission pose a different set of challenges for a relationship as the individual returning will generally have experienced emotionally challenging situations (Wood & Scarville, 1995; Kelley, 2002).

Regardless of the risk factors, the military offers an abundance of support for marital stability such as job security, housing assistance together with dental and medical care and, as a result, relieve the common economic pressures of marriage. In certain military programmes there is assistance with adjustment to deployment and reunion which is focused on helping to increase marital stability (Rosen & Durand, 2000).

The work-induced travel cycle varies drastically from family to family. How frequently the individual is required to be absent (weekly or monthly) and for what duration (one night, one week or months at a time) will all have differing impacts on the family. The nature of the travel will be a component of the impact. Parent-child relationships in military families are the most vulnerable to challenges induced by separations and exposure to combat thus, creating a negative atmosphere in the home and creating greater tensions within the marriage (Cozza & Lieberman, 2007).

There are also many elements to be considered especially for the children and their ability to comprehend the deployment and return, the nature, temperament (including emotion regulation) and characteristics of the child and the quality of the parent-child relationship and it’s functioning before the work-induced travel (Rutter, 1990; Garmez, 1983).

Young children’s adaptation to separation can depend on the age at which the child is first exposed and therefore crucial to the extent of the effects. Effects can differ depending on which parent is travelling, be it the mother or father, as children typically view their mother as loving, comforting and nurturing (US Census Bureau, 2000). In the US military, interventions have been put in place to ensure a smooth adjustment. These interventions aim to give the required attention and support to the children as well as the partner left behind.

With such interventions it is crucial to take into account the overall health and well-being of the children. Consideration for the built environment should also be studied as it will have an influence on children’s adaptation as well as the parent-child relationship during

deployment and reintegration. Family support systems that are structured will assist by helping to nurture the existing parent/child attachment.

Couples who endure work-induced separations frequently experience abnormal strains to the relationship due to the geographic separation. The majority of couples exhibit signs of resilience despite any individual and relationship distress which can occur (Karney & Crown, 2007; Milliken, Auchterlonie & Hoge, 2007). However reports suggest military couples are at a higher risk to infidelity. Allen et al (2005) found the common risk factors making couples vulnerable to infidelity are marrying young and geographic separation. Understanding the risk and prevalent factors for travelling individuals may assist in disseminating and creating intervention and prevention strategies to strengthen a couple's relationship.

Infidelity is among the highest factor cited for divorce among civilian couples and in turn is also associated with an extremely high risk for the likelihood of divorce among travelling couples (Amato & Previti, 2003; London, Allen & Wilmoth, 2013). The National Health and Social Life Survey compared non-veterans and veterans on their likelihood of divorce and rate of infidelity. The results demonstrated that the likelihood of veterans engaging in infidelity was significantly higher than non-veterans. The study also noted that there was a higher rate of infidelity among individuals involved in work related separation when compared to individuals not involved in partnerships where one individual travelled for work. Moreover the study did not identify the period at which the infidelity occurred thus the finding may not be generalized (London et al, 2013).

Despite a number of community studies which have been conducted there is limited evidence surrounding this area of research. There are increased risk factors of infidelity both physical and emotional in individuals with a military background where they have previously experienced separation and/or divorce (London et al, 2013). A recent study found that the precursors of infidelity were a combination of relationship dissatisfaction and life stressors (Abrahamson, Hussain, Khan & Schofield, 2012).

Karney and Crown (2007) moved beyond the stress hypothesis and focused on the reasons behind the success and failure of marriages. The assumption proposed that resources, partners individual qualities, experiences and on-going development and resultant changes in personality inevitably impacted on the stability and satisfaction of a relationship. Research surrounding couples who are not physically separate reiterates the importance regular interaction has on a relationship in terms of both stability and satisfaction (Matthews, Conger and Wickrama, 1996).

1.4.2 Non-military findings

Attachment theory suggests that during all periods of life, the presence of attachment figures provide a core sense of emotional security and thus advancing affect regulation day-to-day (Kobak & Sceery, 1988; Feeney, 1995; Brennan & Shaver, 1995). Characteristics provided by an attachment figure can include external affect regulations by contributing comfort and support, displaying empathy, sharing success, allowing individuals to forget about their problems or making individuals laugh (Thompson, 1994; Gross & Munoz, 1995). Although it can be argued that an individual's partner does not necessarily need to be present physically to serve such functions, day-to-day closeness may be valuable. This argument was formed on

the basis of animal research that is consistent with physical proximity to the attachment figure. There are beneficial effects to affective functioning which appear in the presence of solid supportive interactions (Hofer, 1984).

If this is the case, then physical separation for these individuals should be considerably disruptive. An abundance of studies on infants separated from their primary caregivers support this to be the case, resulting in psychological distress and behavioural agitation (Hennessy, 1997; Gunnar, Gonzalez, Goodlin & Levine, 1981). Studying adult attachment relationships with regards to separation related disruptions is more difficult, as adults typically can withstand much longer time periods of separation compared to that of their infant counterparts. Hence, researchers investigating physical separation in adult couples generally depend on accounts from the partners' regarding the separations and have generally researched long separations brought about due to prolonged work related travel (Roehling & Bultman, 2002; Fisher & Stoneman, 1998; Gerstel & Gross, 1984).

Finding the balance between marriage obligations and job retention especially when work-related travel is inevitable is a major issue. Some studies have established the benefits of a stable marriage. Typically children from married households tend to have better health along with higher incomes and better financial savings than those in divorce situations (Waite & Gallagher, 2000). Negative effects associated with work productivity and marital distress varies (Forthofer, Markman, Cox, Stanley, & Kessler, 1996) with a heightened risk for both the children and adults involved (Cowan & Cowan, 1992). These risks include chronic illness and higher mortality rates and there is a higher rate of alcoholic misuse. (Waite & Gallagher, 2000; Rogers, 1995).

As the benefits of a stable marriage are evident (Horn et al., 2013), it is crucial to study the factors that are both associated with marital disruptions and stability. Generally studies have found that 40% to 50% of first marriages result in divorce (Kreider & Fields, 2002). The vast majority of these marriages dissolve within the first five years and the balance within the first ten years. Multiple factors are involved such as poor communication, low education levels, short relationships prior to marriage and co-habiting before marriage (Bumpass, Martin & Sweet, 1991).

1.5 Current Study

The focus of this study is work related travel and in particular the impact that the resulting separation has on the stay-at-home partner. The three core research areas that this study concentrates on are Stress, Sleep Quality and Relationship Structure. These were chosen because they were prominent themes in current literature. Most of the existing core studies and associated literature relate to the US military and also reference the impacts to the stay-at-home partner. This study is comparable with a number of exceptions including that the focus is on the non-military Irish population.

1.5.1 Rationale

This study area was chosen on account of witnessing the recent economic down turn and the resulting change in family structures due to the increase in the number of individuals engaged

in frequent work related travel. Upon investigation and review it became clear that this was not an area that had received much attention from researchers. From observation it appeared that the emotional impact was greater to the stay-at-home partner.

1.5.2 Aims

- a) Higher rates of stress in relationships which are involved in work-related travel.
- b) Partnerships involved in work related travel experience less relationship satisfaction.
- c) Sleep quality is poorer in relationships when the travelling partner is not at home.

2 METHOD

2.1 Participants

The participants were obtained through convenience sampling in the forms of social media and word-of-mouth. These methods were chosen to achieve as many participants as possible. Participants were a total of 31 (males, n = 5; females, n= 26) co-habiting or married individuals. The selection criteria included individuals who had been in a co-habiting partnership for over two years and where each member of the partnership was over the age of 18. The nationality of the sample was Irish. Forty six individuals expressed an interest in participating in the study. Six were excluded because they failed to meet the criteria as they were either not in a co-habiting partnership for over 2 years or they were divorced. Nine individuals failed to return questionnaires.

2.2 Design

The study utilised cross-sectional, correlation and explorative methods in order to obtain the required information. There was no control group in this study as it is a correlation design. The predictor variables were perceived stress, sleep quality and relationship structure. The criterion variable was work-related travel. A bivariate correlation and thematic analysis was undertaken to assess the relationship between the predictor variables and criterion variable.

The research proposal was passed by The National College of Ireland's Ethics Committee.

Each participant responded to four questionnaires. Full anonymity was guaranteed and participants had the option of withdrawing from the study at any time. There were no personal benefits offered for participation and participation was completely voluntary.

2.3 Measures

The documents prepared for review and comment by the participants are noted below;

- a) Cover Sheet An introduction to the study
- b) Questionnaire 1 Perceived Stress Scale
- c) Questionnaire 2 Pittsburgh Sleep Quality Index
- d) Questionnaire 3 Relationship Structure
- e) Questionnaire 4 Open Ended Questions

2.3.1 Cover Sheet

The cover sheet included a brief summary of the study, an account of their involvement, the criteria for selection, the voluntary nature of their participation and the fact that they could withdraw from the study at any time. The Cover Sheet also noted that participants could contact the Researcher (via email) if any questions or concerns arose during their participation. Refer to Appendix 1 for Cover Sheet.

2.3.2 Background to Questionnaire 1 - Perceived Stress Scale

Cohen's perceived stress questionnaire designed by Cohen & Williamson (2012) was the first questionnaire administered. The scale is a measure of psychological stress associated with an event occurring in one's life (work-related separation). It indicates an individual's perception and capacity to adapt to these stressors. For example "in the past 6 months, how often have you felt difficulties were piling up so high that you could not overcome them?". The questionnaire has 10 questions which are scored on a 5-point likeret scale. The scale ranges from 1 being "*never*" to 5 being "*very often*". Reverse coding was introduced for items 4, 5, 7 and 8. The results of previous studies indicated a high reliability with Cronbach's Alpha score ($\alpha = .82$) (Andreou et al., 2011). This questionnaire was chosen to enable the examination of perceived stress as a predictor variable of work-related travel. Refer to Appendix 2 for Questionnaire 1.

2.3.3 Background to Questionnaire 2 - Pittsburgh Sleep Quality Index

The second questionnaire was the Pittsburgh Sleep Quality Index designed by Buysse (1989). This questionnaire has 15 questions to assess the quality and patterns of sleep in adults. For example "In the past month, how many times do you wake up in the middle of the night?". Each item was scored on a 4-point likeret scale with 1 being "*not in the past month*" and 4 being "*three or more times a week*". Previous studies demonstrated reliability, achieving a high Cronbach's alpha score ($\alpha = .77$) (de la Vega., 2015). This questionnaire was chosen in order to examine sleep quality of an individual when their partner is travelling. Refer to Appendix 3 for Questionnaire 2.

2.3.4 Background to Questionnaire 3 – Relationship Structure

The Relationship Structure questionnaire used in this study was created by Fraley, Niedenthal, Marks, Brumbaugh, & Vicary (2006). This questionnaire has 9 questions and was chosen to assess attachment patterns in a close relationship (romantic partner). For example "I usually discuss my problems and concerns with this person". The items included in the scale look at avoidance and anxiety with regards to the relationship in question (romantic partner). Reverse coding was introduced for questions 1, 2, 3 and 4. The Cronbach's alpha score achieved by previous studies was high ($\alpha = .83$) (Fraley, Heffernan, Vicary & Brumbaugh, 2011). Questions were scored on a 5-point likeret scale with 1 being "*strongly agree*" to 5 being "*strongly disagree*". Refer to Appendix 4 for Questionnaire 3.

2.3.5 Background to Questionnaire 4 – Open Ended Questions

The open ended questions were included as part of the study to enable the researcher to gain an insight into some effects impacting on the partnerships that may not have been identified through the questionnaires. This was structured to allow participants to address other personal struggles they face on a daily basis as a direct result of the work-related separation. Refer to Appendix 5 for Questionnaire 4.

2.4 Procedure

Google forms was chosen as the platform to administer the four questionnaires as this is a well-established method for conducting such research.

A pilot study was undertaken to examine the average length it would take participants to complete the questionnaires in the study. This included reading the cover letter, agreeing to the terms of participation and completing the 4 questionnaires. Four individuals took part in the pilot study. The average time was 7 minutes. This information was also included in the cover sheet.

The collection of data began on 20th January 2018. Participation was open to any individual who met the criteria (n = 40). The questionnaire was active for four weeks with the closing date for submission of the questionnaires being the 18th February 2018. Completed questionnaires were returned by 31 participants.

2.5 Statistical Analysis

Preliminary analysis was conducted on the base data including a bivariate correlation. This was chosen to establish if there was a direct relationship between perceived stress, sleep quality and relationship structure (*dependent variables*) and work-related travel (*independent variable*).

Due to the small sample size statistical analysis in this study would not achieve a reliable result. Therefore a thematic analysis was conducted to gain a more in-depth understanding of the data gathered.

2.6 Ethical Concerns

It was considered that the principal ethical concern for this study was the personal nature of the questionnaires. It was understood that individuals may not feel comfortable sharing such personal information. To overcome this concern, participants were informed in writing that information shared during their participation was completely confidential and non-identifiable. They were informed about their right to withdraw their participation at any stage throughout the study and there would be no consequences of this action.

The ethical guidelines from the Psychological Society of Ireland were adhered to along with the ethical guidelines prescribed by the Ethics Committee of The National College of Ireland.

3 RESULTS

3.1 Reliability Statistics

Cronbach's Alpha analysis was used in this study to check the reliability of the Perceived Stress Questionnaire, the Pittsburgh Sleep Quality Index and the Relationship Structure Questionnaire. The results received under Questionnaire 1 (Perceived Stress) demonstrated a low reliability ($\alpha = .079$). The results received for Questionnaire 2 (Pittsburgh sleep quality index) were also found to have a low reliability ($\alpha = .283$). The results received under

Questionnaire 3 (Relationship Structure) demonstrated high reliability ($\alpha = .950$) (refer to Table 1).

It is noted above that the larger the sample size the more reliable the result. The reliability for these scales may be skewed due to the small sample size resulting in results that are not reliable. In previous studies with larger sample sizes reliability for these questionnaires achieved high results (Andreou et al., 2011; de la Vega., 2015 & Fraley, Heffernan, Vicary & Brumbaugh, 2011).

Table 1 - Reliability Statistics for Dependent and Independent variables

Variables	No. Of Items	Cronbach's Alpha
Perceived Stress Questionnaire	10	.079
Pittsburgh Sleep Quality Index	15	.283
Relationship Structure Questionnaire	9	.950

3.2 Descriptive Statistics

This study included a total of 31 participants (females, $n = 26$; males, $n = 5$). 11% of participants experienced 9-12 weeks of separation per year, 19% experienced 13-20 weeks of separation per year, 35% experienced 21-30 weeks of separation per year and 35% experienced above 31 weeks of separation per year (see table 2).

Descriptive statistics include mean and median for the number of weeks of separation, perceived stress, relationship structure and sleep quality. The mean (2.9) and median (3.0) for weeks of separation due to work related travel and normal distribution is predicted due to the similarity of mean to median. The RSTOTAL score for descriptive statistics was mean (39.5) and the median (43.0) which are also similar predicting normal distribution. PSTOTAL descriptive statistics had a mean (31.1) and median (30.5) which predicts normal distribution. PQSITOTAL score for descriptive statistics was mean (70.7) and median (68.3) also predicting normal distribution.

Table 2 – Descriptive Statistics of all continuous variables

	Mean (95% Confidence Intervals)	Std. Error Mean	Median	SD	Range
Perceived Stress	31.05(29-32)	.054	30.5	2.9	26-39
Sleep Quality	70.75(63-78)	3.69	68.3	18.4	39-115
Relationship Structure	39.5(36-42)	1.36	43.0	7.6	18-45

3.3 Correlation Analysis

The relationship between weeks of work-related travel and perceived stress was investigated using a Pearson correlation analysis. Introductory analyses were conducted to guarantee there was no violation of assumptions of normality and homoscedasticity. There was a weak relationship between the two variables $r = .269$, $p = .151$. This revealed that there is little association between work-related travel and perceived stress. The variables only shared 7.3% of variance demonstrating a weak correlation between high work-related travel and perceived stress.

The relationship between weeks of work-related travel and sleep quality was investigated using a Pearson correlation analysis. Introductory analyses were conducted to guarantee there was no violation of assumptions of normality and homoscedasticity. There was a weak relationship between the two variables $r = .292$, $p = .157$. This revealed that work-related travel and sleep quality were negatively associated. The variables only shared 16.8% of variance. This indicated that high work-related travel was weakly related with sleep quality.

The relationship between weeks of work-related travel and relationship structure was investigated using a Pearson correlation analysis. Introductory analyses were conducted to guarantee there was no violation of assumptions of normality and homoscedasticity. There was a weak negative relationship between the two variables $r = -.176$, $p = .345$. This revealed that work-related travel and relationship structure were negatively associated. The variables only shared 3.2% of variance. This revealed that high work-related travel was negatively related to relationship structure.

Table 3 - Correlations between all continuous variables

Variables	1	2	3	4
1.Weeks travelled	1			
2.PSTOTAL	-.17	1		
3.PSQITOTAL	.29	.17	1	
4.RSTOTAL	.15	.23	.15	1

Note: Statistical significance: * $p < .05$; ** $p < .01$; *** $p < .001$

3.4 Thematic Analysis

It is recognised that the participants in this study can be considered a niche group due to this being a pilot study area and hence there was a relatively small cohort available for

recruitment. Due to the low sample size and the resultant lack of statistical reliability a qualitative element in the form of three open ended questions was also part of the study. The questions were designed to elicit an individual perspective of their personal experiences. This was structured in the form of leading questions which sought to illicit the participant's opinion on three core areas of study. Themes varied among the questions but within questions the key themes remained constant.

As this was a self-report measure, with complete anonymity assured, the participants are thought to have been comfortable disclosing their experiences.

3.4.1 Question 1: In your opinion, what is the greatest personal challenge resulting from your partner's work-related travel?

Communication The main theme arising out of the responses to this question was communication or, in particular, the lack thereof. A range of emotions were expressed that were tied into the difficulties of communication over geographical distances or time zones which resulted in feelings of disconnection, loneliness, boredom and frustration. One participant noted "feeling distant" due to what they perceived to be a lack of communication. Another stated that "Communication can be difficult which sometimes leads to misunderstandings". While another participant stated difficulty in "remembering the small details". Many participants also noted that a lack of communication meant that they believed that they ended up "doing it all myself".

3.4.2 Question 2: In your opinion, does the quality of your sleep decrease when your partner is travelling? If so, why?

Security This theme captures the majority of the participant's intense feelings of vulnerability and uncertainty about being the only adult in the house at night for extended periods of time. Participants described "sleeping lighter", being on "high alert" and "lack of safety". There was also a significant concern that they were "solely responsible" if anything was to happen at night such as a child becoming unwell, the participant becoming unwell, the alarm going off and whether it is a real alarm or a false alarm, etc. While it has been noted that the majority of responses to this question focused on the negative aspects of a partner travelling it is also important to note that there were some responses which focused on what the participants perceived to be positive aspects such as "no, tends to be better having the bed to myself!" and "no, I sleep better when he is away".

3.4.3 Question 3: What if any, additional stress did you encounter as a result of parenting in your partners absence?

Responsibility The main theme arising from this question is responsibility. However it is important to note that this was of particular importance to families with children and was not as important to partnerships where there were no children involved. The common sentiment was that they felt that they were going from a shared partnership to what would be considered a single parent household – even though they knew that they were not a single parent household - "Being mam and dad".

Some of the responses indicated that important decisions were made without “having someone to talk it over with” or that they had to deal with “all problems small and large” and suffered with stress or higher tension as a result of this additional responsibility.

Participants stated that there was absolutely no possibility of “me time” and “there was no help or takeover” and that this impacted on their ability to cope with the additional responsibility which was placed on them as a result of the work related travel.

3.4.4 Supporting Themes

There were many smaller themes noted including adjusting and re-connecting to their partner leaving and then returning “having to adjust and then re-adjust to the coming and going” and in particular the lows of their partner leaving and the highs of their partners return.

Household management was a frequent theme. The upkeep of the household as well as daily mundane activities was identified as a cause of additional stress for the stay at home partner “balancing my own work and the jobs around the house alone”. Finding childcare was also noted as an additional challenge for the stay at home partner and in particular when this partner also had a job “the most stressful thing was finding proper childcare while working off peak hours”.

The themes of frustration or resentment aired within the responses of a small number of participants. This was illustrated in the form of responses such as “doing it all myself” and “not having him to talk to”. As a result there was a heightened level of frustration and tensions within the relationships leading to relationship dissatisfaction. As noted above prolonged or regular periods of relationship dissatisfaction can lead to infidelity and later divorce.

4 Discussion

The majority of literature surrounding work-related travel tends to focus on its effect on various sections of the American military. Notwithstanding, a relatively small number of studies have been conducted on the effects which work-related travel has on individuals who are not involved in the military.

Meta-analyses suggest that the impacts of work-related travel on military and non-military individuals are extensive (Kelley, 1994). Faber, Willerton, Clymer, MacDermid & Weiss (2008) considered that the impact should decrease over time as both parties adjust to the change of routine and the new roles and responsibilities within the partnership. However Angrist & Johnson (2000) have demonstrated that this is not the case and that parties struggle to become accustomed to the ever changing dynamic that results from the frequent absence of one party from the home and, by extension, the relationship.

This study aims to make a contribution to the current understanding of three important impacts associated with work related travel. These are perceived stress, sleep quality and relationship structure.

Stress, sleep quality and relationship structure were explored in the stay at home partner resulting from work-related travel.

Due to the lack of literature in this study area the aims could not be developed into hypotheses and therefore remained as explorative aims.

A bivariate correlation analysis was conducted to establish the relationships between the dependent variables and the independent variables. This involved aims one, two and three. There was no significant relationship found between the dependent variables and independent variables. While there was no significant relationship found, a weak relationship was shown between each of the variables and work-related separation. This illustrates that there is a relationship present but it is small. Again this potentially could be due to the small sample size.

This could potentially be a starting point for future investigations and further research due to the very promising results found within the thematic analysis that is discussed below.

4.1 Factors affecting stress levels

The majority of participants highlighted that the main cause of increased stress arising from their absent partner was due to the increased responsibility that they perceived they had to assume because they were the relationship anchor in the home. The struggles to maintain *normalised* communication with their partner, even though they may be dealing with large geographical distances, and the associated differences in time zones for those partnerships with children together with the additional responsibility of raising the children added to increased stress levels. It was noted that while travel is undertaken for positive reasons and in most situations to provide financial stability for the family, in most cases it did this at the expense of the emotional stability of the partnership.

In this study some of the stay-at-home partners expressed a belief that they were the anchor of the relationship because they had not moved anywhere and they were in fact based in the shared home. As a result of this belief they felt that they had to take on more and more responsibility for the managing of the relationship and all associated decisions including the running of the house (Kelley et al., 2002). Some participants noted that they ended up having “*no me time*”, had to take responsibility for daily tasks in the home that for the most part are mundane, lost the ‘couple’ part of their social life which lead to increased levels of boredom and, as a result of these and other impacting factors, suffered increased frustration.

As noted above the levels of boredom and frustration increased for many reasons which resulted in feelings of isolation and loneliness in the home, in social environments and in particular dealing with important life events.

Some participants in this study suggested that having children created additional responsibilities and resulted in significantly increased stress levels. Issues raised include having “*no me time*”, juggling their own job, managing the house, being solely responsible for decision making and disciplining children, etc. These results were consistent with previous research Paris et al (2010) where it was found that participants having children reported an increase in their own perception of the level of stress they are suffering as a result of the work-related separation.

Silva–Breen (2012) found similar results illustrating that the stay at home parent has to become a single parent temporarily. Control around finances, housework, children’s activities, and homework have to switch to the stay-at-home parent. Children can get accustomed to the travelling parent being the ‘fun’ one resulting in the stay-at-home parent as the enforcer of discipline, who becomes used to making parenting decisions alone.

This study highlighted that life within the house keeps moving on despite the traveller’s schedule. The stay-at-home partner can feel the absence even while the travelling partner is at home because they are constantly anticipating their partner’s next departure. Arriving home can also be a difficult time as the returning partner may be excited to be home while the stay-at-home partner wants nothing more than to be relieved of the additional responsibilities which they have been managing in their absence.

4.2 Factors affecting sleep quality

In this study, most participants (56%) indicated that a perceived lack of security as a result of their absent partner resulted in elevated levels of anxiety and higher alertness that resulted in poor sleep quality. It is worth noting that a number (44%) of participants noted that their sleep improved as a result of having the bed to themselves.

Participants in the study conducted by Diamond et al., (2008) identified a decrease in the sleep quality of the stay-at-home partner while their partner was travelling. This study expanded the concept by investigating the underlying reasons for the impact on sleep. Fuller (2010) also identified that the quality of sleep of the stay at home partner decreases vastly when their partner was travelling.

There are linked impacts to poor sleep such as cognitive impairment together with a reduction in attention and processing speed (Slutter, Zllig, Allemand & Martin, 2012). This suggests that poor sleep quality does affect a broader range of functions. The result is that the stay-at-home partner’s ability to cope with day-to-day life becomes less efficient as a result of poor sleep even without taking into account all the additional responsibility that comes with having a partner who travels away for work.

As a result of the compromised sleep quality the relationship satisfaction will be affected.

4.3 Factors affecting relationship satisfaction

The mechanisms for sustaining a stable and positive relationship involves physical proximity, daily conversation, shared care giving, humour, and equal opportunity to thrive (Silva-Breen, 2012). Participants of this study reported that communication and emotional isolation were the main contributing factors to relationship dissatisfaction. These findings are consistent with previous studies undertaken by Silva–Breen (2012). In their study, according to the participants, the failure of communication can start to take an emotional and physical toll on the relationship.

Relationship satisfaction has been noted by Bowlby (1969/1982) to be impacted by differing attachment types. The findings within this study reiterates the central tenets of his theory of attachment. Furthermore he indicated that after separation from one’s attachment figure any resulting stress should ease when the attachment figure returns. However, in many cases

the reunions may be equally stressful as the separations (Sroufe & Waters, 1977; Bartholomew, 1990; Main & Weston, 1982). When the results of this research study were compared to similar studies the same findings were identified.

While there is no dispute that travelling can be exhausting there is also no dispute that when you travel often your body is constantly in a state of flux adjusting to different foods, varying accommodation, time zones and work expectations. After spending more time away from home than in the home it is no wonder the travelling partner develops two lives: one at home and one away working on the road. Even with regular phone calls, texts, emails, Skype calls, etc. the relationships that develop during the travel become more authentic than the ones left at home. It is this feeling of uncertainty and isolation for the stay at home partner that has the potential for them to become involved in affairs, addictions, mood disorders, and other health related issues. Gross and Munoz (1995) found, consistent with psychological reactance theory (Brehm, 1956) that isolated individuals were more likely to engage in rebellious activities.

4.4 Strengths and Limitations

4.4.1 Strengths

Various strengths were identified in this research study including the length of time involved in participation, the no cost element and the qualitative nature of the study.

The overall time required for participation in this research study was approximately 7 minutes. This allowed participants time to read the Cover Sheet and to further read and respond to the four questionnaires. The questionnaires were easy to understand, straight forward and relatively short.

This research study was structured so that there was no cost to the researcher at any point in the study. One of the benefits of incurring no costs is that the study can be easily replicated.

The qualitative data gathered allowed for an in-depth review of the research area. Complete anonymity was assured and this provided a great deal comfort to the participants and enabled them to respond openly and address issues that questionnaires or the researcher might have missed.

4.4.2 Limitations

Although there is a significant amount of individuals who are currently experiencing work-related separation, obtaining and recruiting a sample proved difficult. This may be due to the lack of research in this area together with the lack of awareness of this important issue and hence individuals may have been hesitant to participate. One possible way to overcome this in future studies would be to raise awareness and provide the reasons behind the research being conducted in this area.

According to Stevens (1996) there must be at least fifteen participants per variable when conducting statistical analysis. This small research sample provides little reliability by way of results and it may also be a reason for the lack of significant findings. Information for this study was obtained through a self report measure. Individuals may perceive themselves to be better or worse at coping with the effects of the travel than they truly are. Individuals with low relationship structures may not like to admit it thus ranking the relationship at the higher end. Type 1 and type 2 errors have to be accounted for as a result of the self report measure.

A longitudinal research design for a study like this is more preferable due to the developing nature of the research. There are numerous impacting factors that were not looked at in this study. In future studies it would be beneficial to look at the stay at the home partner throughout the first year of the work-related separation and then again at two yearly intervals (years 3 & 5). This would allow observation of the changing dynamic within the relationship and, in particular, to observe the adjustment strategies that have evolved over those years.

The population of the study consisted of 26 (83.9%) females out of a total study group of 31 participants. Further studies need to be conducted to understand if the results can be generalized to the overall population.

4.5 Future Studies

The main area that could be revised for future research is the sample size. This study only contained 31 participants. Future studies should consider expanding the sample size with the aim of achieving a stronger set of results that reflects the population and therefore allowing results to be generalisable.

Future studies could also look at the gender of the stay at home partner and, in particular, if the impacts are the same on the different sexes.

Future research could examine if individuals with attachment avoidance have greater levels of anxiety when the travelling partner returns to the home compared to individuals with other attachment types.

4.6 Conclusion

It is undeniable that work-related travel has an impact on any relationship. The elements that impact the relationship may still need revision. In summary, this study contains a short 'snapshot' of relationships involved in work-related separations and the differing impacts in the form of perceived stress, sleep quality and relationship structure.

The results suggest the communication is a significant predictor factor of perceived stress and relationship structure. The results also suggest that having children in situations where work-related separation is present is an additional stressor, which in turn can decrease relationship satisfaction. This can result in a build up of resentment over time. Each hypothesis was supported through thematical analysis, but due to the small sample size, the results were underpowered in the statistical analysis.

It is important for practitioners and researchers, along with individuals involved in work-related separation, to be aware of the different variables that may contribute to lower

relationship satisfaction and sleep quality as well as higher stress levels, as these variables could be forerunners for future psychological research.

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6 Appendix

Appendix 1 – Cover Sheet

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This study is being conducted as part of a final year dissertation through The National College of Ireland and is being supervised by April Hargreaves (who can be contacted at april.hargreaves@ncirl.ie)

You are invited to take part in this survey which looks at the effects on sleep quality, stress and relationship structures of partnerships where one party is involved in work-related travel. For the avoidance of any confusion, this survey should be completed by the individual who is not travelling. The aim of the study is to investigate how work-related travel impacts on the person who is not travelling.

Participation requires a few minutes of your time and involves completing a number of questions regarding your personal experience when your partner is travelling and the resulting adversities and difficulties that may arise. If the questions cause any emotional distress, negative emotion or you find yourself affected, please find the appropriate contact and support details on the final page of this document.

Participation in this study is COMPLETELY VOLUNTARY and you are under no obligation to participate. If you wish to withdraw at any stage, you may do so with no consequence.

The information you provide is COMPLETELY ANONYMOUS AND CONFIDENTIAL, including the submission of the questionnaire which is not referenced back to you or to your email address.

By completing this survey you are consenting to participating.

- a) I am informed about the nature of the proposed study and agree to voluntary participation. (Yes/No)
- b) I am over the age of 18. (Yes/No)
- c) How many weeks of the year is your partner away for one night or more? (9-12 weeks, 13-20 weeks, 21-30 weeks, 31 and above weeks)
- d) What is your sex? (Male/Female/Other)

Appendix 2 – Perceived Stress Questionnaire

1-Never, 2- Almost Never, 3- Sometimes, 4-Fairly Often, 5-Very Often.

- 1- In the last month, how often have you been upset because of something that happened unexpectedly?
- 2- In the last month, how often have you felt that you were unable to control the important things in your life?
- 3- In the last month, how often have you felt nervous and “stressed“?
- 4- In the last month, how often have you felt confident about your ability to handle your personal problems?
- 5- In the last month, how often have you felt that things were going your way?
- 6- In the last month, how often have you found that you could not cope with all the things that you had to do?
- 7- In the last month, how often have you been able to control irritations in your life?
- 8- In the last month, how often have you felt that you were on top of things?
- 9- In the last month, how often have you been angered because of things that were outside of your control?
- 10- 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Appendix 3 – Pittsburgh Sleep Quality Index

1. When have you usually gone to bed?
2. How long (in minutes) has it taken you to fall asleep each night?
3. What time have you usually gotten up in the morning?

During the past month, how often have you had trouble sleeping because you:

- A. Cannot get to sleep within 30 minutes
- B. Wake up in the middle of the night or early morning
- C. Have to get up to use the bathroom
- D. Cannot breathe comfortably
- E. Cough or snore loudly
- F. Feel too cold
- G. Feel too hot
- H. Have bad dreams
- I. Have pain

(1-Not during the past month 2-Less than once a week, 3- Once or twice a week, 4-Three or more times a week)

During the past month, how would you rate your sleep quality overall? (1-Very good, 2-Fairly good, 3-Fairly bad, 4-Very bad)

Have you ever taken medicine to help you sleep? (Yes/No)

During the past month, how often have you had trouble staying awake while driving, eating meals or engaging in social activity? (1-Not during the past month, 2-Less than once a week, 3-Once or twice a week, 4-Three or more times a week)

Appendix 4 – Relationship Structure Questionnaire

1. It helps to turn to this person in times of need.
2. I usually discuss my problems and concerns with this person.
3. I talk things over with this person.
4. I find it easy to depend on this person.
5. I don't feel comfortable opening up to this person.
6. I prefer not to show this person how I feel deep down.
7. I often worry that this person doesn't really care for me.
8. I'm afraid that this person may abandon me.
9. I worry that this person won't care about me as much as I care about him or her.

Appendix 5 – Open Ended Questionnaire

1. In your opinion, what is the greatest personal challenge resulting from your partners work-related travel?
2. In your opinion, does the quality of your sleep decrease when your partner is travelling? If so, why?
3. What if any, additional stress did you encounter as a result of parenting in your partners absence?