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Exploring the Relationships between Encountering Potentially Traumatic Work Events, Coping, and Symptoms of Posttraumatic Stress Disorder in Saudi Paramedics: A Daily Diary Study

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Abstract

BACKGROUND: Paramedics and emergency medical technicians (EMTs) suffer from high levels of trauma at work due to traumatic incidents they face each day. This study aimed to investigate the association between daily Post-Traumatic Stress Disorder (PTSD) symptoms and daily incidents, coping styles and social support among Saudi ambulance personnel.

METHODS: Utilizing a daily diary design, 63 Saudi paramedics completed the baseline questionnaire and 51 of them completed at least two shifts. The baseline measurements included Screen of Post-traumatic Stress Disorders Scale (SPTSS), PTSD Check-List-5 (PCL-5), Brief Coping scale (BC), and a social support scale. While the daily measurements included PCL-5, brief coping, social support and a list of incidents.

RESULTS: Using hierarchical linear modelling, higher numbers of daily incidents were significantly associated with a greater number of daily PTSD symptoms. Coping styles and social support were not associated with daily PTSD symptoms, but passive coping was found to moderate the association between daily incidents and daily PTSD symptoms such that paramedics who reported higher passive coping levels were more vulnerable to experience higher PTSD symptoms on days they were exposed to potentially traumatic events.

CONCLUSIONS: Ambulance organisations must do more to support paramedics during and after traumatic incident exposure by offering appropriate prevention and intervention programs.

Keywords:

Ambulance personnel, coping strategies, daily diary method, daily traumatic events, posttraumatic stress disorder

Introduction

Emergency medical technicians and paramedics suffer high levels of trauma at work, including direct trauma due to physical abuse from patients and their families, and indirect trauma due to exposure to traumatic injuries and sudden deaths (Alden, Regambal, and Laposa, 2008; Berger *et al*., 2012; Petrie *et al*., 2018; and Skogstad *et al*., 2013). Paramedics in Saudi Arabia also face administrative, psychological, and cultural challenges that negatively impact their mental health, including limited organizational support, frequent conflict with patients or their families, and low public awareness of Emergency Medical Service (AlShammari, Jennings, and Williams, 2017; and Khan

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et al., 2020). They may experience more stress than paramedics in other countries due to factors including a higher rate of traffic accidents, work demands during the Hajj season, and long working hours (WHO, 2018; Al Mutairi *et al*., 2016; Khan *et al*., 2020). Study results showed that 28.5% of Saudi paramedics screened positive for partial posttraumatic stress disorder (PTSD), 17.5% screened positive for full PTSD, and 46% suffered from at least one PTSD symptom (Alshahrani *et al*., 2022).

Carver's model (1997) and Lazarus and Folkman's transactional models (1984) can be useful when investigating coping strategies. These approaches categorize coping strategies as being either (1) problem focused, (2) emotion focused, or (3) avoidant (Abraham *et al*., 2016; Carver *et al*., 1989; Hearman and Tetrick, 2009). Research on coping strategies in ambulance personnel has indicated they use a number of strategies to cope with daily traumatic events they experience (Duschek, Bair, Haux, Garrido, and Janka, 2020; Mildenhall, 2012). For instance, some paramedics suppress their emotions in stressful situations in order to remain focused on their duties, but after stressful incidents, they may use storytelling or avoidance as coping strategies (Alshahrani *et al*., 2022; Mildenhall, 2012). Studies have demonstrated the use of both active (e.g. exercise) and passive (e.g. avoidance, self-blame) coping strategies by ambulance personnel, with the latter generally associated with reduced symptoms of PTSD (Alshahrani *et al*., 2022; Avraham, Goldblatt, and amp; Yafe, 2014; Brooks and amp; Brooks, 2021; and Showerk *et al*., 2020). Social support also plays a crucial role in coping, with structural and functional support being distinguished (Uchino *et al*., 1996; Thoits, 1995; Wills and amp; Shinar, 2000). There is a correlation between higher perceived support from family and friends and a lower level of PTSD symptoms (Alshahrani, Johnson, and amp; O'Connor, 2022; Donnelly, 2012). However, most research is cross-sectional; the current study aims to explore the daily relationships between trauma, PTSD symptoms, coping, and support using a daily diary method.

It has also been suggested that experiencing more frequent traumatic events can increase the risk of PTSD symptoms (Copeland, Keeler, Angold, and Costello, 2007; Geronazzo-Alman *et al*., 2017), but to date, no study has examined the daily associations between exposure to traumatic events, coping, and PTSD symptoms among paramedics. In previous studies, two overarching observations can be made: (1) most studies have examined the cross-sectional associations between PTSD and other variables among paramedics (e.g, Alaqeel, Aljerian, AlNahdi, and Almaini, 2019; Berger *et al*., 2007b; Eiche *et al*., 2019; Kerai *et al*., 2017; Minnie, Goodman, and Wallis, 2015) and (2) the majority of previous studies have only measured PTSD at one point in time, rather than exploring possibly daily fluctuations (Halpern, Gurevich, Schwartz, and Brazeau, 2009b; Hsiao *et al*., 2019; Rybojad, Aftyka, Baran, and Rzońca, 2016). Moreover, some recent results from research into stress and PTSD symptoms among paramedics have emphasized the importance of using daily diary methods because: (1) the interaction of daily critical incidents, shift work, and long working hours with little recovery time between incidents are elements of increasing stress in paramedics and (2) trauma exposure is repetitive and happens almost every day, potentially cumulative, and poses a threat to the safety, health, and well-being of paramedics and other first responders (Beaton and Murphy, 2013).

The current study aimed to investigate the association between daily incidents and the daily level of PTSD symptoms using an end-of-shift, daily diary approach. We were also interested in exploring the association between coping styles and subsequent daily PTSD symptoms, and the association between social support and daily PTSD symptoms.

Methods

Design

Quantitative daily diary study using a within-subjects repeated measures' design. Participants completed an online prediary survey (baseline questionnaire) and then online end-of-shift diaries (interval-contingent approach) for 4 days (2 – day shifts and 2 – night shifts). For increasing protocol adherence, participants were reminded through text message before and after each shift with a link to their online diary.

Ethical consideration

This study was approved by the University of Leeds, School of Psychology Ethics Committee (reference number PSYC-279, date: July 20, 2021). The participants were fully informed about the types of questions that would be involved in the study prior to submitting their consent. Furthermore, they were informed of their right to withdraw at any time before, during, and after participating, up until the point of analysis (1 month after study completion). They were also informed that any contact information they provided would be kept completely anonymous through the use of a unique participant code. Finally, they were provided with contact information for relevant support and helplines at the end of the study in case they became distressed due to the potentially sensitive nature of the study.

Participants and procedure

Participants were Saudi ambulance personnel working in Saudi Red Crescent Authority (SRCA),

recruited via E-mails and text messages sent to participants distributed by their organization to complete diary surveys between September 10, 2021, and February 01, 2022. Participants logged on to the secure website, read the information sheets, and completed an electronic consent form. After that, they read the instructions for the study and created their own username. Then, they completed baseline measures of PTSD (Screen of Posttraumatic Stress Disorders Scale, and PTSD Check-List 5 [PCL-5]), coping strategies (Brief Coping Scale), and social support. They then received daily text message reminders to log back into the secure website at the end of their shifts, for 4 working days (2 days shifts, and two nights shifts) to complete measures of daily PTSD, coping strategies, and type of incidents/events.

Baseline measures

Screen of posttraumatic stress disorders scale (Carlson, 2001)

This measure reflects PTSD symptoms as provided by the Diagnostic and Statistical Manual of Mental Disorders (DSM 4th edition). Seventeen items are divided into three subscales: "Re-experience" evaluates memories of trauma or repeated dreams, "Hyper-arousal" measures aggression or concentration problems, and "Avoidance" measures avoiding painful feelings, thoughts, or external reminders of trauma (Segal, 2010). Cronbach's alpha scores in the current study showed acceptable internal consistency, being 0.88, 0.65, 0.81, and 0.76 for the total scales, avoidance, arousal, and re-experience subscales, respectively.

Posttraumatic stress disorder check-list-5

The PCL-5 is a self-report measure that assesses PTSD symptoms based on DSM-5 criteria (Blevins, Weathers, Davis, Witte, and Domino, 2015). The original scale contains 20 items with a total possible score ranging from 0 to 80. In this study, we used the abbreviated 8-item version of PCL-5 (Price, Szafranski, van Stolk-Cooke, and Gros, 2016). The items measured PTSD symptoms experienced over the last month on a 0–4 Likert scale (0 = Not at all, 4 = Extremely). Possible scores ranged from 0 to 32, and it was the Arabic version of the scale translated by (Ibrahim, Ertl, Catani, Ismail, and Neuner, 2018) which we used in this study. The Cronbach's alpha in the current study was 0.80 for eight items.

Brief coping scale

Coping was assessed using the Arabic translation of the Brief Coping Scale (Carver, 1997). This was translated and developed for Arabic cultures by Jaber (2012). The scale includes 20 items measuring two factors. The first is "active coping" (13 items) which contains religion, planning, and positive reframing items. The second factor is "passive coping" (6 items) which covers behavioral disengagement, substance abuse, and self-blame. Cronbach's alphas for the active and passive coping scales were 0.87 and 0.73, respectively.

Social support scale

Social support was examined using the Social Support Scale (Jaber, 2012). Three sources of social support are measured on the scale (13 items in each): family, friends, and government or nongovernment organizations (in this study, the nongovernment organization was replaced with "SRCA"). The Cronbach's alphas for all items, family, and friends, and SRCA subscales in the present study were 0.96, 0.95, and 0.97, respectively.

The daily shift measures

At the end of each shift, participants were asked to complete questionnaires measuring PTSD and the type of incidents they faced at work. For PTSD, the study used the full PCL-5 (8 items) adapted for daily use because it is an appropriate scale for monitoring symptoms of PTSD (Price *et al*., 2016).

List of daily incidents

We developed a list of the potentially traumatic incidents most frequently encountered by Saudi paramedics based on the annual report of SRCA ("Saudi Red Crescent Authority," 2021. We also drew on descriptions of potentially traumatic incidents generated in a recent qualitative study of Saudi paramedics (Alshahrani *et al*., 2022). The final list included general car accidents, car accidents involving children and women, other accidents involving children, incidents of disobedience to parents and the elderly, cardiac arrest and breathing problems, verbal and physical abuse toward paramedics, and incidents involving murder, suicides, burns, and drowning.

Data analysis

The data were analyzed using hierarchical linear modeling (HLM-8) (Raudenbush, 2004). HLM allows data to be analyzed both within a level and across levels. Two levels of data were organized in this study. Level 1 described the variation within participants (number of incidents and daily PTSD), whereas level 2 represented the between-participants variation (baseline measures of PTSD, coping strategies, social support, and demographic characteristics). In level 1, daily PTSD was used as an outcome variable, whereas the total number of incidents was estimated as a group mean-centered predictor variable. In level 2, variables were grand mean centered. We examined the relationship between the total number of incidents and daily PTSD symptoms by examining the level 1 slope models, as well as testing the cross-level effects of coping strategy styles and social support (level 2 variables) on daily PTSD symptoms and whether the relationships between the total number of incidents

and daily PTSD symptoms (level 1) were moderated by coping styles and social support. A description of the equations and general form of the models is provided in Appendix 1.

Results

Participants were 63 Saudi ambulance personnel from 16 different cities working in SRCA, recruited through E-mail and text messages sent to participants distributed by their organization inviting them to complete daily diary surveys. Following this, 45 participants returned four end-of-shift questionnaires, and 51 returned two or more end-of-shift questionnaires. All participants were male and they had an age range between 20 and 53 (mean = 32.64 years, standard deviation [SD] = 6.10). Years of service ranged between 1 and 29 years (mean = 8.46 years, SD = 5.90). Descriptive statistics for all variables are presented in Table 1.

There were a variety of traumatic incidents that included car accidents, verbal and physical abuse, cardiopulmonary resuscitation (CPR), parental neglect, murder, and suicide. The most common incidents included car accidents, physical and verbal abuse, and CPR. In contrast, burns, drownings, and suicides were the least common incidents. Table 2 provides a description of the types of incidents and their frequency among paramedics.

Table 1: Descriptive statistics for level 1 (within-person, end-of-shift questionnaires) and level 2 (between participants, baseline questionnaire)

Variables	Mean	SD	Range
Level 1			
PTSD	14.16	6.08	0–26
Total incidents	2.28	0.84	1–5
Level 2			
Age	32.64	6.10	20–53
Year of service	8.46	5.90	1–29
PTSD (SPTSS)	26.86	12.61	1–55
PTSD (PCL-5)	12.43	6.57	0–27
Active coping	31.80	7.37	17–51
Passive coping	11.84	3.86	6–19
Family and friend support	69.14	18.04	28–104
SRCA supports	10.43	11.46	13–52

PTSD: Posttraumatic stress disorders, SPTSS: Screen of Posttraumatic Stress Disorders Scale, PCL-5: Posttraumatic stress disorders check list-5, SRCA: Saudi Red Crescent Authority, SD: Standard deviation

The total number of daily incidents was positively associated with a higher number of daily PTSD symptoms indicating that paramedics who faced more incidents during a shift reported higher PTSD symptoms on those days (β = 1.39, P = 0.001) [Table 2].

There was no significant association between active coping style and daily PTSD symptoms, showing that active coping was not associated with PTSD symptoms among paramedics (β = 0.24, P = 0.011) [Table 2].

Passive coping style reported at baseline was not found to be significantly associated with daily PTSD symptoms (β = 0.43, P = 0.052). This indicates that a higher background level of passive coping did not significantly predict subsequently higher daily PTSD symptoms [Table 2].

The analyses found that active coping did not moderate the relationship between daily total incidents and daily PTSD symptoms (β = 0.04, P = 0.46), but that passive coping did moderate the association between a number of daily incidents and PTSD symptoms (β = 0.19, P = 0.007) [Table 2]. This cross-level interaction was

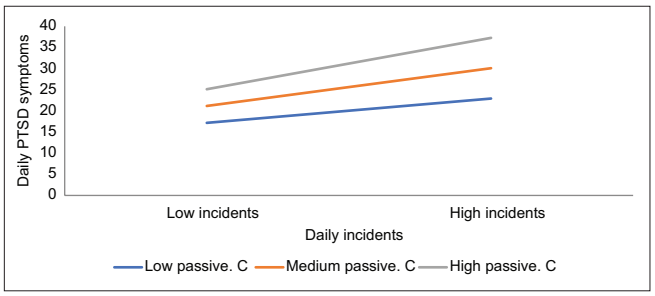

Figure 1: The moderating effect of passive coping levels on the daily incidents and daily posttraumatic stress disorder symptoms relationship. PTSD: Posttraumatic stress disorder

Table 2: Types of incidents and their frequencies among paramedics

Potential traumatic incidents	Number of frequencies				Total
	Day shift 1	Day shift 2	Night shift 1	Night shift 2	
Car accidents	29	20	34	28	111
Verbal and physical abuse	16	13	20	13	62
Cardiac arrest and breathing	21	14	13	13	61
Car accidents involving children and women	9	8	18	14	49
Incidents of disobedience to parents and the elderly	10	11	3	7	31
Murder or manslaughter	8	10	5	6	29
Other incidents involving children	6	7	9	5	27
Burn incidents	8	4	5	8	26
Drowning incidents	3	9	6	5	23
Suicides	4	4	5	3	16

Table 3: The association between total incidents, coping styles, and daily posttraumatic stress disorder symptoms

HLM effect	Symbol	Coefficient	SE	*P*
Intercept: PTSD	β_{00}	13.78	0.78	<0.001
Level 1 slope				
Total-incidents-PTSD	β_{10}	1.39	0.31	<0.001
Intercept	β_{00}	10.59	0.92	<0.001
Active coping - PTSD	β_{01}	0.24	0.14	0.110
Level 1 slope				
Total incidents - PTSD	β_{10}	1.3	0.35	<0.001
Active coping × Incidents - PTSD	β_{11}	0.04	0.05	0.458
Intercept	β_{00}	13.78	0.74	<0.001
Passive coping – PTSD	β_{01}	0.43	0.19	0.052
Level 1 slope				
Total incidents - PTSD	β_{10}	1.35	0.27	<0.001
Passive coping × Incidents - PTSD	β_{11}	0.19	0.06	0.007

PTSD: Posttraumatic stress disorders, SE: Standard error, HLM: Hierarchical linear modeling

Table 4: The associations between social support, incidents, and daily posttraumatic stress disorder symptoms

HLM effect	Symbol	Coefficient	SE	*P*
Intercept	β_{00}	13.79	0.72	<0.001
Family and friends support - PTSD	β_{01}	0.09	0.04	0.036
Level 1 slope				
Total incidents- PTSD	β_{10}	1.34	0.31	<0.001
Family and friends support incidents - PTSD	β_{11}	−0.01	0.01	0.419
Intercept	β_{00}	13.78	0.77	<0.001
SRCA support - PTSD	β_{01}	−0.43	0.06	0.671
Level 1 slope				
Total incidents - PTSD	β_{10}	1.35	0.45	0.003
SRCA support incidents - PTSD	β_{11}	−0.11	0.04	0.798

PTSD: Posttraumatic stress disorders, SE: Standard error, HLM: Hierarchical linear modelling, SRCA: Saudi red crescent authority

decomposed using simple slopes for multilevel modeling (Preacher, Curran, and Bauer (2006)), [Figure 1]. The results of these analyses showed that the association between daily incidents and daily PTSD symptoms became stronger as passive coping levels increased [Figure 1].

The results showed that there was a significant association between family and friends' support and daily PTSD symptoms, such that the paramedics who felt more supported by family and friends reported lower daily PTSD symptoms ($\beta = 0.09$, $P = 0.03$) [Table 4]. However, there was no significant association between SRCA support and daily PTSD symptoms ($\beta = -0.43$, $P = 0.67$).

Our results demonstrated that family and friend support did not moderate the relationship between daily total incidents and daily PTSD symptoms ($\beta = -0.01$, $P = 0.41$). Similarly, the SRCA support measure did not moderate the association between a number of incidents and daily PTSD symptoms ($\beta = -0.11$, $P = 0.79$) [Table 3].

Discussion

The primary aim of the current study was to investigate whether a higher number of daily incidents were associated with greater levels of daily PTSD symptoms in Saudi paramedics. In addition, we aimed to investigate whether active and passive coping styles or social support predicted or moderated the association between daily incidents and daily PTSD symptoms. The results showed that a higher number of daily incidents was associated with greater daily PTSD symptoms indicating that the paramedics who had experienced more incidents during their shift reported more symptoms of PTSD on those days. The findings showed that there were no direct associations between active coping, passive coping, SRCA social support, and daily PTSD symptoms, but there was a significant association between family and friends support and daily PTSD symptoms. However, while active coping and both forms of social support did not moderate the association between the number of daily incidents and daily PTSD symptoms, passive coping did moderate the association between daily incidents and daily PTSD symptoms. Using simple slope analyses, we showed that higher levels of passive coping were associated with a larger impact of daily incidents on daily PTSD symptoms compared to lower levels of passive coping.

These findings are consistent with the model of coping proposed by Lazarus and Folkman (1984). In their transactional model of stress, they suggest that exposure to stressors is associated with greater strain and that daily traumatic incidents can lead to chronic stress over time. Our findings also extend the existing literature by showing that daily traumatic incidents may contribute to mental health problems among ambulance personnel specifically (Alexander and Klein, 2001; Hruska and Barduhn, 2021; Jonsson and Segesten, 2004; Minnie *et al*., 2015; Van der Ploeg and Kleber, 2003). In a weekly diary study, Andel (2017) found that exposure to an increasing number of traumatic events was associated with higher levels of anxiety, depression, sleep disturbance, and stress among paramedics. The present study extends this previous study by measuring incidents and PTSD symptoms daily and by researching in Saudi paramedics who face a high frequency of potentially traumatic events (Alshahrani, Johnson, and O'Connor, 2022; Mansuri, Al-Zalabani, Zalat, and Qabshawi, 2015). According to The Saudi General Authority for Statistics (2019), road accidents result in 19 deaths and 96 injuries every day in Saudi Arabia. Moreover, traffic

incidents are not only the most frequently encountered type of incident treated by Saudi paramedics, but they are also the most stressful type of incidents they face in their daily work (Saudi Red Crescent Authority 2021; Karlsson, Niemelä, and Jonsson, 2020; Alshahrani *et al*., 2022). The stress of these incidents is exacerbated by paramedic shortages in Saudi Arabia. In 2019, there were 9015 paramedics in Saudi Arabia, which has a population of 34,268,528 (The General Authority for Statistics, 2019). This equates to one paramedic for every 3801 citizens and suggests that they have a large workload and are exposed to high levels of daily stress that may seriously threaten their health, well-being, and performance (O'Connor, Thayer, and Vedhara, 2021).

While we found that active coping did not appear to be linked with PTSD symptoms, higher levels of passive coping did appear to make paramedics vulnerable to experiencing PTSD in response to traumatic events. This finding supports previous studies which have shown that passive coping is linked with PTSD in paramedics (Alshahrani *et al*., 2022; Haglund, Cooper, Southwick, and Charney, 2014). For example, Kerai *et al*. (2017) and Razik, Ehring, and Emmelkamp (2013) investigated whether coping styles predicted PTSD symptoms among paramedics and found that higher levels of passive coping styles were associated with more PTSD symptoms. The present study extends this previous research by showing that (1) passive coping can predict subsequent PTSD symptoms and (2) passive coping may exert its effect by conferring vulnerability to potentially traumatic events.

In terms of social support, our findings showed that there was an association between daily PTSD symptoms and family and friends support, but SRCA support was not associated with PTSD symptoms. The positive finding for family and friends support is in line with some previous studies that found that family and friends support can be useful in reducing PTSD symptoms in paramedics and other health practitioners (Alexander and Klein, 2001; Halpern, Gurevich, Schwartz, and Brazeau, 2009a; Dunst, 2022;). This may relate to the fact that paramedics tend to confide in their family and friends more than any other source of support when experiencing stressful circumstances (Avraham *et al*., 2014; E. Donnelly, 2012; Regehr *et al*., 2001). Therefore, they may prefer the family and friends support more than their organizational support (Donnelly, Bradford, Davis, Hedges, and Klingel, 2016).

In contrast, our results found that SRCA support was not associated with PTSD symptoms.

Strengths and limitations

This is the first study, to our knowledge, that has examined the association between daily incidents and PTSD symptoms in paramedics. It benefited from a robust research design involving the use of multiple daily measurements to produce estimates. Limitations of the study included the use of a relatively small sample size which may have reduced the statistical power. However, this was partially compensated for by the inclusion of multiple data points for each participant and allowing each participant to act as their own control. Furthermore, there were some limited missing data points, as a small minority of participants did not complete all daily questionnaires.

Practical implications

Our findings suggest that paramedics who encounter a high frequency of potentially traumatic events are at higher risk of experiencing PTSD symptoms. As such, it would be helpful if organizations kept a record of the number of incidents attended by paramedics and contacted those who had been exposed to higher numbers to screen them for poor mental health symptoms and prioritize the provision of mental health support. Our findings also suggest that paramedics who use a higher degree of passive coping techniques may be more vulnerable to subsequently experiencing PTSD symptoms in response to potentially traumatic work events. As such, these paramedics may particularly benefit from mental health support and should be prioritized for this.

Mental health support interventions which are provided should focus on reducing reliance on passive coping strategies and help paramedics to develop alternative strategies (Johnson *et al*., 2020). Furthermore, it could be beneficial for paramedic health and well-being for organizations to provide interventions which aim to help paramedics develop stronger personal social support because organizational support as well as encouraging paramedics to seek support from each other may then increase their self-efficacy (Shakespeare-Finch, Rees, and Armstrong, 2015).

Conclusion

The current study found a strong association between a higher number of daily incidents and a higher number of daily PTSD symptoms in paramedics. Passive coping was found to amplify the association between the number of daily incidents and PTSD symptoms. These findings suggest that paramedic organizations ought to take steps to help protect paramedics during and after traumatic incidents exposure by creating and providing appropriate prevention and intervention programs.

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Conflicts of interest

There are no conflicts of interest.

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Appendix 1: General form of models and equations for research questions

Are daily incidents associated with daily level PTSD symptoms?

The general form of the model is expressed by the following equation:

Outcome variable (e.g. PTSD) = $\beta_{00} + \beta_{01}$ *(TOTAL_IN)* + $r_0 + e$
β_{00} = Mean level of outcome variable.
β_{01} = Indicates the extent to which this is influenced by total number of incidents.
r_0 = The error term associated with the intercept and accounts for variation around the mean.
e = Error term.

Is active coping style associated with daily level of PTSD symptoms?

The general form of the model is expressed by the following equation:

Outcome variable (e.g. PTSD) = $\beta_{00} + \beta_{01}$ (Active_C) + β_{10} (TOTAL_IN) + β_{11} (ACTIVE_C) (TOTAL_IN) + $r_0 + e$
β_{00} = Mean level of outcome variable.
β_{01} = Indicates the extent to which this is influenced by total Active coping.
β_{10} = Indicates the average size of the relationship between daily PTSD and Active coping.
β_{11} = Indicates the extent to which that relationship is moderated by total incidents.
r_0 = The error term associated with the intercept and accounts for variation around the mean.
e = Error term.

Is passive coping style associated with daily level of PTSD symptoms?

The general form of the model is expressed by the following equation:

Outcome variable (e.g. PTSD) = $\beta_{00} + \beta_{01}$ (Passive_C) + β_{10} (TOTAL_IN) + β_{11} (Passive_C) (TOTAL_IN) + $r_0 + e$
β_{00} = Mean level of outcome variable.
β_{01} = Indicates the extent to which this is influenced by total Passive coping.
β_{10} = Indicates the average size of the relationship between daily PTSD and Active coping.
β_{11} = Indicates the extent to which that relationship is moderated by total incidents.
r_0 = The error term associated with the intercept and accounts for variation around the mean.
e = Error term.

Is family and friends support associated with daily PTSD symptoms?

The general form of the model is expressed by the following equation:

Outcome variable (e.g. PTSD) = $\beta_{00} + \beta_{01}$ (Fam & Fri S) + β_{10} (TOTAL_IN) + β_{11} (Fam & Fri S) (TOTAL_IN) + $r_0 + e$
β_{00} = Mean level of outcome variable.
β_{01} = Indicates the extent to which this is influenced by Fam & Fri Support
β_{10} = Indicates the average size of the relationship between daily PTSD and Fam & Fri Support.
β_{11} = Indicates the extent to which that relationship is moderated by total incidents.
r_0 = The error term associated with the intercept and accounts for variation around the mean.
e = Error term.

Is SRCA support associated with daily PTSD symptoms?

The general form of the model is expressed by the following equation:

Outcome variable (e.g. PTSD) = $\beta_{00} + \beta_{01}$ (SRCA_S) + β_{10} (TOTAL_IN) + β_{11} (SRCA_S) (TOTAL_IN) + $r_{0} +$ e

β_{00} = Mean level of outcome variable.

β_{01} = Indicates the extent to which this is influenced by SRCA Support

β_{10} = Indicates the average size of the relationship between daily PTSD and SRCA Support.

β_{11} = Indicates the extent to which that relationship is moderated by total incidents.

r_0 = The error term associated with the intercept and accounts for variation around the mean.

e = Error term.