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Mixed-Methods Consultation Study of Family and Friends Supporting a Paramedic Experiencing Mental Ill-Health or Suicidal Distress

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Abstract

Supporting paramedics experiencing mental ill-health or suicidal distress is rewarding yet challenging for family, friends, and colleagues, but little is known about these carers' specific experiences and needs. This study explores carers' experiences of providing support and their requirements for online support programs. Seventy-two carers completed an online survey, with 14 participating in interviews. Survey data is presented using descriptive statistics and content analysis was applied to open-ended survey responses, while thematic analysis was conducted on interview transcripts. Carers provide significant emotional and practical support to paramedics facing mental health concerns or suicidal distress, emphasizing the importance of self-care despite accompanying guilt. Positive views were expressed regarding online

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programs offering confidentiality, accessibility, and information on paramedics' challenges. The study highlights the necessity for accessible online interventions, ensuring confidentiality and equipping carers with tools to address paramedics' mental health needs while prioritizing self-care.

Keywords
coping, experience, family, mental illness, psychological distress, social support, stigma, suicide, trauma, wellbeing

Introduction

Family members, friends, and colleagues play a key role in promoting and supporting paramedics' wellbeing and mental health and for many paramedics, this is often their preferred method of support compared to that of supervisors, employee assistance, or professional services (Donnelly et al., 2016; Regehr & Millar, 2007). Previous research has shown that family and friends play important roles in paramedics' wellbeing, including reducing the impact of stressful work, increasing resilience after traumatic incidents, and reducing rates of leave following traumatic events (McKeon et al., 2021). The preference for informal support appears to have been mostly overlooked in previous research, with literature predominantly focusing on workplace supports (Boland et al., 2019). Additionally, the impact of stigma within the workplace may prevent paramedics from disclosing or seeking formal support for their mental ill-health (Mackinnon et al., 2020). The *Answering the Call* national survey in Australia identified that 57% of ambulance service employees would be hesitant to disclose their mental health issues to a mental health professional or within their organization, highlighting the importance of family and friends as supports (Lawrence et al., 2018). In this article, "family and friends" refers to individuals who provide care and support to a paramedic including partners, spouses, parents, siblings, extended family, friends, housemates, colleagues, or any other significant relationships. Literature often refers to those who provide this informal support as "carers" or "caregivers."

Although supporting another person can be rewarding, the caregiving role has been associated with poorer health outcomes, including increased rates of depression and anxiety (Edwards & Higgins, 2009; Price et al., 2010; Rhee et al., 2008). Carers of Australian first responders experience psychological distress at more than double the rate of the general population and experience lower quality of life, sleep, and physical activity (McKeon et al., 2021). Family supporting first responders' mental health have reported feeling unseen, with employers and health services not recognizing their role or need for support (Waddell et al., 2020). This highlights a need for first responder organizations to better integrate family and friends in mental health and wellbeing strategies (Beyond Blue Ltd, 2018) and prioritize carer wellbeing (McKeon et al., 2021).

Characteristics of the paramedic profession may account for some challenges that family, friends, and colleagues report. Paramedics often experience stressful, traumatic, and unpredictable situations during long working hours and shift rosters (Lawn et al., 2020), resulting in higher rates of mental ill-health and suicidal distress than the Australian general population (Petrie, Smallwood et al., 2022). For example, a national first responder survey found that 39% of Australian Ambulance personnel reported a previous or current diagnosed mental illness (Lawrence et al., 2018), which is significantly higher than the Australian general adult population (National Study of Mental Health and Wellbeing, 2020–21 | Australian Bureau of Statistics, 2022). Anxiety, depression, and post-traumatic stress disorder (PTSD) are the most common mental health concerns for paramedics, and commonly occur comorbidly with other physical and mental health concerns (Lawn et al., 2020; Lawrence et al., 2018; Petrie Smallwood et al., 2022). Recent research also indicated that suicide risk among Australian paramedics was marginally higher than other emergency service workers (Petrie, Spittal et al., 2022). The COVID-19 pandemic further exacerbated challenges for paramedic workers in Australia. During this period, they expressed feeling unsafe at work, unsupported, under-resourced, and noted a lack of communication by management during the crisis (Petrie, Smallwood et al., 2022). Moreover, paramedics reported increased rates of PTSD and burnout, but less than one in 10 sought professional mental health support (Smallwood et al., 2021).

At the time this consultation study was undertaken, there were no tailored online support programs for family and friends supporting the mental health of paramedics. A gap exists in the literature of studies seeking to understand the needs of carers for paramedics experiencing mental health concerns or suicidal distress. The present study aimed to understand carers' needs in this context and sought to answer the following research questions: What is the experience of supporting a paramedic experiencing mental ill-health or suicidal distress? What are the support needs of these carers?

Methods

Ethics

The study had research ethics committee approval from the Human Research Ethics Committee of the University of Newcastle (reference number H-2021-0438).

Participants and Recruitment

We conducted an online survey of 72 family and friends of paramedics and in-depth interviews with 14 of these carers.

Consultation Survey. Survey participants were over 18 years of age, living in Australia and providing support to a currently or previously employed paramedic experiencing

symptoms of mental ill-health or suicidal distress (no formal diagnosis required). The survey was available online from March 2 to August 12, 2022 (inclusive). Participants consented online and were offered an optional $25 grocery gift voucher to recognize the time associated with participation.

Interviews. At the end of the survey, participants were invited to an interview to expand on information provided in the survey. Interviews were scheduled between May 2 and August 17, 2022. Participants provided informed verbal consent to participate in a recorded and transcribed interview and were offered a $35 grocery gift voucher.

Data Collection

Consultation Survey. The survey was designed to gain understanding of participants' experiences and support needs. The survey collected demographic information about the carer and care recipient (paramedic), information about the paramedic's mental health, the nature of the care relationship, and participants' preferences about an online support program. A condensed version of the Family Caregiver Burden Scale (BSFC-s, 10-items) (Graessel et al., 2014) was used to assess subjective burden encountered by family carers and has been found to be a feasible and valid scale. The 10-item Kessler-10 scale (Kessler et al., 2002) was used to identify levels of psychological distress and the need for further assessment of depression and anxiety (Andrews & Slade, 2001). Survey responses were stored on a password-protected account in REDCap. The survey took approximately 10 to 15 min to complete.

Interviews. Semistructured interviews gave participants the opportunity to elaborate on their care experience and preferences for a targeted online support program. The interview included questions about participants' experience supporting their paramedic family member or friend, what daily life was like while providing support, what challenges they experienced being a support person, factors to be considered when supporting a paramedic, self-care and wellbeing practices, enablers and barriers to accessing online support, and what to include in an online program.

Interviews were conducted via webcam ($n = 12$) or telephone ($n = 2$) and took approximately 20 to 30 min. The target sample size for interviews was 10 to 15 participants depending on the number needed to achieve saturation of themes.

Data Analysis

Consultation Survey. Survey data were analyzed using Jamovi 2.2.5. Data of survey participants were included in the analysis if the survey was at least 80% complete. A total of 133 respondents answered at least one survey question and, of these, 72 participants were included in the analysis who completed 80% or more of the entire survey. Numerical data are presented as counts and percentages. Text data from open-ended questions were analyzed using inductive content analysis.

Interviews. Thematic analysis was used to identify key themes within interview data to enable translation of information into categories and themes in a coherent and meaningful way (Braun & Clarke, 2006; Crowe et al., 2015). An inductive approach for theme development was used because little is known of the experiences of family and friends who support paramedics with mental ill-health or suicidal distress. As a first step, interview transcripts were read repeatedly to become familiar with the data and to take notes of key features of the data to develop initial codes. These codes were used to organize the data into larger categories, which were revised, clustered, or combined to identify potential themes. The themes were then reviewed and refined. Exemplar quotes were identified to be representative of the themes.

Results

Quantitative Results of Survey

Characteristics of Participants. Three quarters of the respondents were female and were most commonly a spouse (39%; Table 1). Just under half of the participants lived in the same residence as the paramedic they supported. Only 8.3% of participants scored a mild level of carer burden on the BSFC-s, with half of the participants scoring in the severe range. Almost a quarter of participants scored very high on the K10.

Characteristics of Paramedics as Reported by Survey Participants. For paramedics being supported, most were male (63%), half had a current formal diagnosis of a mental illness, with over 60% of these seeking formal treatment (Table 2). Anxiety was the most common mental illness reported (36%), followed by depression (29%) and PTSD (24%). Furthermore, 42% of paramedics being supported had experienced or were currently experiencing suicidal distress or behavior.

Family and Friends' Preferences for Online Support Programs. Participants were asked about their preferences for online support programs and were able to select more than one response option (hence the percentages exceed 100%).

The top five selected preferences important to participants in completing an online program were:

- a better understanding of systems and services available (54%);
- feeling more competent to support someone to feel less sad or depressed (53%);
- a better understanding and ability to adjust to supporting someone experiencing mental ill-health or suicidal distress (53%);
- more skilled to support someone experiencing mental ill-health or suicidal distress (51%); and
- feeling more equipped and knowledgeable about referral pathways/resource options (47%).

Table 1. Characteristics of Survey Participants (n = 72).

Demographics of participants (family and friends supporting a paramedic)		
Variable	Count	Total percentage
Gender		
Male	17	23.6
Female	54	75
Nonbinary	1	1.4
Age		
20–29	11	15.3
30–39	20	27.8
40–49	20	27.8
50–59	15	20.8
≥60	6	8.3
Relationship to paramedic		
Child	3	4.2
Colleague	9	12.5
Friend	20	27.8
Parent or parent-in-law	6	8.3
Spouse	28	38.9
Sibling	5	6.9
Other	1	1.4
Living situation		
Live with the paramedic	33	45.8
Do not live with the paramedic	39	54.2
Years supporting the paramedic		
<1	11	15.3
1–9	46	63.9
10–20	8	11.1
>20	7	9.7
Total scores—Burden Scale for Family Caregivers—short version		
0–4 points Your burden of care is none to mild	6	8.3
5–14 points Your burden of care is moderate	30	41.7
15–30 points Your burden of care is severe to very severe	36	50
Total scores—The Kessler Psychological Distress Scale (K10)		
10–15 Low	23	31.9
16–21 Moderate	22	30.6
22–29 High	11	15.3
30–50 Very high	16	22.2

Table 2. Characteristics of Paramedics as Reported by Survey Participants.

Demographics of the paramedic that participants are supporting		
Variable	Count	Total percentage
Gender		
Male	45	62.5
Female	26	36.1
Prefer not to say	1	1.6
Age		
20–29	16	22.2
30–39	21	29.2
40–49	19	26.4
50–59	14	19.4
=/>60	2	2.8
Years served/serving as a paramedic		
<1	1	1.4
1–9	42	58.3
10–20	15	20.8
>20	14	19.4
Current formal diagnosis of mental illness or condition		
No	26	36.1
Yes	36	50
Unsure	10	13.9
Which mental illness have they been diagnosed with?		
Depression	21	29.2
Anxiety	26	36.1
PTSD	17	23.6
Other	2	2.8
Have they received, or currently receiving treatment for their mental illness?		
No	21	28.2
Yes	45	62.5
Unsure	6	8.3
Have they ever experienced suicidal distress or behavior?		
No	28	38.9
Yes	30	41.7
Unsure	14	19.4

PTSD= post-traumatic stress disorder.

The top five selected items that might prevent participants from completing an online support program were:

- time constraints (65%);
- concerns of confidentiality/online security (35%);

- motivation (25%);
- other responsibilities (17%); and
- reliability of technology (14%).

The top five selected items that would encourage participants to participate in an online support program were:

- assurance of confidentiality (49%);
- flexible availability of the program (47%);
- a program that is easy to read and navigate (47%);
- interactive and engaging program (44%); and
- ability to access on a mobile phone (39%).

Qualitative Results of Online Survey

Qualitative comments within the online survey provided in-depth perspectives on themes related to the nature of support provided, challenges in providing support, specific issues to consider when supporting a paramedic, the support person's own mental health and wellbeing, and how they felt about supporting a paramedic.

Respondents described the nature of support they provided as emotional support (58.3%), followed by practical support (41.7%), listening, and talking (23.6%), psychological support and debriefing (16.7%), and financial support/management (8.3%).

> "Emotional support as an ear to listen when he has been involved with a very traumatic event with patients. He generally doesn't discuss his work other than a bland answer such as quiet shift or busy etc. unless it has been particularly difficult." (p. 44)

The top three challenges respondents experienced when providing support was limited time/lack of time (20.8%), exhaustion, burn out and their own mental ill-health (20.8%), and dealing with the paramedic's mental ill-health (18.1%). Other challenges included the paramedic not wanting support or failing to identify their needs, the carer not knowing what to do or say, the physical distance at times between the carer and care recipient, workplace issues the paramedic may be experiencing, the carer feeling unsupported, the carer raising children, and loneliness.

> "I am called on constantly for emotional and moral support as well as her main share of love. Although I am not working in a paid capacity, I do a lot of volunteering and my life is otherwise full. Caring for [her] consumes a lot of my time." (p. 111)

> "Exhaustion from working, raising children, running the household with little to no help, while supporting a spouse whose profession broke him." (p. 2)

Respondents cited specific issues that need to be considered when supporting the mental health of a paramedic. The top three issues were trauma (34.7%), shift work

(27.8%), and workplace issues (25%). Other issues included workplace culture and stigma, the lack of supports available, the paramedic not accessing supports, the lack of mental health knowledge needed by carers, time off work for the paramedic, relationships, the impact on the carer as well as other family and friends, and the paramedic masking or avoiding mental health concerns.

> "For me it has been the impact of his shift work on when he needs support. Often he is distressed early in the morning after working a night shift, or late at night after a late shift. Sometimes being available is difficult." (p. 5)

> "Paramedics are very good at knowing what to say and knowing what NOT to say. Paramedics are used to helping others but find it difficult asking for help themselves. Paramedics will often say they are ok when they are not." (p. 152)

Participants also commented on the need for early intervention in supporting the mental health of paramedics, with a sense of frustration that support is often instituted too late. Respondents also expressed difficulties they experienced when trying to provide support without sufficient mental health literacy or understanding of the paramedic's role, and underestimating the effects on them mentally and physically from being in a support role.

> "It's an honour to help but I feel there should be free professional help of their choice as part of the award to help our paramedics keep being well and able to do their jobs. It's harder to undo stress or PTSD when it's already there so getting in early would build much better resilience." (p. 42)

> "I have been diagnosed with depression and anxiety. My physical health has also suffered." (p. 19)

Interviews

Characteristics of Interview Participants. Fourteen participants participated in either a webcam or telephone interview. Most participants were female (85%) and had a spousal relationship (46%) to a paramedic (Table 3). Three interviewees who provided support to a paramedic were also paramedics themselves. The levels of carer strain (burden) and psychological distress were analyzed for this subset of interview participants from the original participant pool. From the BSFC-s data provided in the consultation survey, 8% of interview participants scored a low level of carer burden, 54% scored a moderate level of care burden, and 46% scored a severe or very severe level of carer burden. From the K10 data, 46% scored a low level of distress, 23% scored a moderate level of distress, and 31% scored a high level of distress.

Table 3. Characteristics of Interview Participants (n = 14).

Demographics of participants (paramedic supporters)		
Variable	Count	Total percentage
Gender		
Male	3	21.4
Female	11	78.6
Age		
30–39	6	42.9
40–49	2	14.3
50–59	4	28.6
=/ > 60	2	14.3
Relationship to paramedic		
Child	2	14.3
Colleague	2	14.3
Friend	1	7.1
Parent or parent-in-law	2	14.3
Spouse	6	42.9
Sibling	1	7.1
Living situation		
Live with the paramedic	5	35.7
Do not live with the paramedic	9	64.3
Years supporting the paramedic		
<1	2	14.3
1–9	7	50.0
10–20	3	21.4
> 20	2	14.3

Thematic Analysis of Interviews

Three main themes were identified in the thematic interview analysis.

Theme 1: The Care Role and Responsibilities (More Than Emotional Support). Carers described how supporting a paramedic with mental ill-health or suicidal distress comprised of providing emotional support and additional lifestyle responsibilities. For example, one carer described her role in listening and supporting her partner when he needed to discuss his workday.

> "…when he comes home from work today, he is gonna have a strong shower and wash the day off. And the second he sees me, he will be going at 120 words a minute venting, and essentially forcing me to sit down and listen to everything that happened during his day." (Participant 122, female, 45–49 years)

Other participants living away from the paramedic provided emotional support over the phone.

> "So there's a lot of phone calls that happen, right. Usually on a daily basis…I think I've provided quite a lot of support for her…as she left her friends and family…to take up a job in a different state." (Participant 111, female, 60–64 years)

> "He will…ring up or just let me know…he's had a really hard day…and so I generally just ask him are you okay? Is there anything you want to talk about…Something awful happened a number of months ago now and you know, so I chatted with him for a while, checked in with him the next day…" (Participant 42, female, 55–59 years)

Participants also described how it was often more important to listen, than fix the problem or provide solutions.

> "…there's not much that can be done besides listening at times and then trying not to interrupt and come up with a solution [because] sometimes there are no solutions…" (Participant 86, female, 55–59 years)

Moreover, participants felt that simply being available to the paramedic and emotionally present when they required it was important.

> "I have over the years allowed myself to be very available to her…that does impact on my time, but, because of my love for her and seeing that she needs that support…So I guess I play a counsellor sort of role." (Participant 111, female, 60–64 years)

Spouses described how the role had required them to adopt additional lifestyle responsibilities, such as domestic duties and child rearing.

> "Not only just that [ordering groceries, making meals], I'm talking about all outdoor gardening, all rubbish or cleaning or washing or dry cleaning or paying of bills. Heck I recently renegotiated a million-dollar mortgage all on my own." (Participant 122, female, 45–49 years)

> "…sometimes I was like a single parent." (Participant 86, female, 55–59 years).

Theme 2: Relationship Change and Challenges. Partner and parent participants reflected on how changes to the paramedic's mental health and the subsequent support role they provided had affected the dynamic of their relationship. One partner noted that taking on additional domestic work made them feel more like the paramedic's mother, than wife. "I feel like…I'm caring for a child" (Participant 122, female, 45–49 years). Another participant shared how changes occurred in their marriage relationship.

> "I don't know who he is anymore…he's not the person that I've known and married, and he's always been the rock and now to have that kind of dissolve away and…I'm trying to be the rock…it's definitely taken a toll on our relationship." (Participant 80, female, 35–39 years).

A participant said that their role in her mother–daughter relationship had changed.

> "It's really changed the dynamic of that relationship, where I'm the caregiver, she's needing that care. It's changed that mother daughter dynamic and flipped that around really." (Participant 27, female, 55–59 years)

Some of the participants' relationship challenges included a lack of understanding and ineffective communication. Some participants stated that it was challenging to understand exactly what the paramedic had been through regarding traumatizing experiences at work. One participant, also a first responder himself, similarly noted that it was hard to comprehend the difficulties of the profession.

> "…being able to relate to what's happening either through lived experience or having a partner that's in that role, that makes a really big difference because not everyone can understand the stresses of shift work as well as that type of higher acuity work on top of it." (Participant 153, male, 35–39 years)

Other participants also expressed a sense of powerlessness in their capacity to provide support.

> "I can see a tsunami of pressure coming straight for him. And there's nothing I can do to save him. Everything I am doing is helping but is ultimately not going to be enough to save him and he will burn out." (Participant 122, female, 45–49 years)

Theme 3: The Carer's Health and Wellbeing (Finding a Balance Between Providing Support and Supporting Oneself). All of the participants mentioned that their mental health and wellbeing was impacted by their support role. For many carers, these effects were psychological. "[The support has] certainly been very draining" (Participant 27, female, 55–59 years). "…Generally when his mental health goes down, mine kind of tends to go down with him" (Participant 80, female, 35–39 years).

One participant's experience of burnout had impacted their capacity to continue providing care.

> "I feel burnt out myself. Yeah. And I consciously find a way of not being with him…I can't keep telling him to breathe and to settle. I am sick to death telling him to go and talk to someone else because I can't do it anymore." (Participant 75, female, 40–45 years)

Most participants identified self-care as an important aspect of their health and well-being and tried to engage in self-care rituals, such as exercise, gardening, arts and craft, mindfulness, or massages.

> "[I] take time out for myself…make sure that I look after myself first because you can't, you know, [the] old adage, you can't give, you know, can't pour from an empty jug." (Participant 42, female, 55–59 years)

Two participants also relied on their religious beliefs as a form of self-care.

> "I unload to God…he's in charge of everything…yeah, that's my lifeline really to this world." (Participant 111, female, 60–64 years)

However, some participants said that feelings of guilt and pressure presented barriers to prioritizing their wellbeing and needs.

> "I try hard to not feel guilty about giving myself some time." (Participant 122, female, 45–49 years).

> "…this pressure on me…I'm not allowed to be sick; I'm not allowed to be unwell. I'm not allowed to be stressed [because] I have to be on deck for him…" (Participant 122, female, 45–49 years)

> "You're focusing on…prioritising everyone else's wellbeing and sometimes you, you get second part of the cherry." (Jerrie, female, 65–69 years)

Discussion

This study used a mixed-methods approach to explore the experiences of family and friends who support the mental health of paramedics, and their preferences for how support may be provided to them. Quantitative and qualitative data from the study outlined various support types that family and friends provide, including emotional, practical, and financial support. Emotional support and debriefing, often via phone calls, were one of the most common ways that participants provided care.

Survey and interview participants frequently reported that their own mental health and wellbeing was affected by their caregiving duties, including feeling drained, exhausted, and burnt out. This was further demonstrated with quantitative survey data, where high and severe levels of caregiving burden were reported. Additionally, over a quarter of participants scored high or very high levels of psychological distress. This aligns with previous research with informal carers, showing that compared to paid nurses, informal carers often have high rates of emotional exhaustion due to long working hours and shared financial burden with the care recipient (Seidel & Thyrian, 2019; Takahashi et al., 2005).

Disruptions to the mental health and wellbeing of carers was expanded upon within the thematic interview analysis where participants noted how paramedics' mental ill-health often affected life at home, including their own wellbeing and the relationship between the paramedic and carer. This aligns with reports from other carer studies, that informal carers also have higher rates of physical health issues and depressive symptoms (Schmidt et al., 2016). In particular, spousal relationships were often negatively affected by paramedics' mental ill-health. For example, changes in relationship dynamics led one interview participant to report that they felt more like a mother than a spouse, which is consistent with previous literature suggesting spouse carers are more likely to experience carer strain (burden) compared to other family members (Pinquart & Sörensen, 2003).

Participants were predominately female, supporting a male paramedic. Consistent with our sample population, the literature demonstrates that females undertake the majority of the informal care for others (Sharma et al., 2016), although men are increasingly assuming caregiving roles (Baker & Robertson, 2008). The predominance of female carers could be influenced by several factors, including women being less likely to be employed outside the home and having greater perceived family obligations (Gallicchio et al., 2002). Many participants providing support were friends (some of who were also colleagues), which may be a potentially emerging demographic of vital support for paramedics, as well as reinforcing the significance of social connections for those experiencing psychological distress (Griffiths et al., 2011). Of note, over half of the participants did not live with the paramedic they support.

Changes in relationship dynamics were commonly attributed to additional domestic tasks being undertaken by carers, predominately from female spouses. This included an imbalance of cooking, cleaning, and financial responsibilities. Females still undertake a disproportionate amount of domestic work when living with a male partner (McMunn et al., 2020), as well as often engaging in paid work outside the home (Weiss et al., 2015). Therefore, informal caregiving could exacerbate an already present inequality of strain. Participants often mentioned that time constraints were a significant challenge due to the extent of their caregiving duties and tasks, and this lack of time was identified as something that may prevent carers from accessing an online support program. Thus, it was noted that flexible availability of a program would encourage them to access a program. These data highlight the importance of tailoring online support programs to the specific needs of carers.

The lack of free time and increased emotional strain experienced by participants highlighted the importance of self-care for those providing support. Most participants actively engaged in self-care of some kind. This was encouraging as one study exploring self-care practices of family carers found that low engagement in self-care practices was associated with carer anxiety, depression, and mental wellbeing (Dionne-Odom et al., 2017).

Family and friends in the current study reported that half the paramedics they were supporting had a diagnosed mental illness and almost half had experienced suicidal

distress. These results need to be interpreted in the context that participant eligibility required carers to be supporting a paramedic experiencing symptoms of mental ill-health or suicidal distress. However, these findings are consistent with the literature in which paramedics and other responders have higher than average rates of anxiety, depression, PTSD, and/or suicidal ideation (Lawn et al., 2020; Petrie, Spittal et al., 2022). Recent research showed that among emergency service workers, ambulance employees were the only first responder occupation with an elevated risk of death from suicide once age and gender characteristics of the workforces were accounted for (Petrie, Spittal et al., 2022).

The high prevalence of depression and anxiety among paramedics is often overlooked given that PTSD has received much attention (McCreary, 2019). In the current study, the most common mental illness reported was anxiety. A Canadian study of emergency responders found that the rate of anxiety among paramedics was as high as 22%, with depression and suicidal ideation at a rate of 10% (Carleton et al., 2018). High rates of anxiety could be due, in part, from the impact of acute and cumulative trauma. In this study, trauma was noted to be a significant issue for paramedics, with several participants mentioning how the impacts of trauma were not well understood by nonemergency responders. Indeed, the experiences of paramedics have been described as "unique," partly because of their consistent and regular attendance at traumatic and stressful events (Regehr, 2005).

It was noted that the effects of trauma were often perceived to be overlooked within ambulance organizations, leading to frustration for participants. Similarly, a systematic review of emergency medical response work found that paramedics often had limited, or no, time to deal with and digest the effects of a traumatic event (Lawn et al., 2020). With reports of sometimes unsympathetic managers and a traditionally stoic culture that discourages emotional displays, paramedics can feel unable to appropriately process traumatic experiences (Barratt et al., 2018; Mahony, 2001). In the present study, workplace issues within ambulance organizations were perceived to be problematic with many participants dissatisfied with ambulance workplace culture surrounding mental health and personal leave for paramedics. Several participants mentioned that workplace issues, including bullying, contributed to paramedic mental-ill health, which in turn exacerbated carer distress. In relation to this, our data suggests that mental health stigma within ambulance organizations was a barrier to paramedics seeking formal mental health services. Other work has suggested that stigmatization forms a challenging barrier for paramedics to seek formal support (Halpern et al., 2009) and can exacerbate under-reporting or delayed reporting of mental health issues from paramedics and other emergency responders (Haugen et al., 2017). From the quantitative survey data, just over a quarter of paramedics diagnosed with a mental illness were not seeking formal support services, indicating that help-seeking rates among paramedics could be improved. This is consistent with findings from a national survey of Ambulance personnel where 22% did not seek formal or informal support despite reporting emotional or mental health concerns (Lawrence et al., 2018).

Low levels of help seeking combined with low levels of satisfaction in formal support services (Lawrence et al., 2018) highlights the significance of an informal support network for paramedics experiencing mental ill-health. Some participants within the survey stated that they did not understand the experiences of paramedics, resulting in family and friends feeling unsure of what to say or do while providing emotional support. This desire to have a greater understanding was expanded upon in the interviews where participants mentioned that they would be likely to use an online support program discussing specific paramedics experiences, including information on trauma. Overall, a combination of professional mental health services with trained professionals and informal support from trusted family and friends may be a beneficial combination for paramedics. When asked about preferences for online support programs, participants frequently reported that assurances of confidentiality and online security were important factors for them.

Future Directions and Limitations

The study was limited by a modest sample size and a relatively low proportion of carers from minority groups, potentially reducing the generalizability of the findings. Moreover, we also did not examine the proportion of participants from rural or lower socio-economic areas. Considering the often diverse and multifaceted experiences of carers, obtaining information from a variety of populations would assist in developing an online support program applicable to a larger range of individuals.

Future directions arising from this study includes replicating the study for other first responder groups (such as police, fire, and rescue services) to further understand their particular informal support networks and inform the development of tailored early intervention programs for their family and friends.

Conclusion

While many paramedics do seek formal support, the role of family and friends remains a key source of support for their mental health and wellbeing, particularly given influences of stigma, workplace stress, and a reluctance of paramedics to disclose mental ill-health to others. This study indicates that those who support a paramedic experiencing mental ill-health or suicidal distress also experience reduced wellbeing, through elevated levels of carer strain (burden) and psychological distress. The findings broaden our understanding of the informal paramedic support system, including the range of relationship roles, the geographical distance between carers and care recipients, the varied types of support provided, and the challenges experienced by carers.

Research has highlighted the benefits of online carer programs and their capacity to improve self-efficacy and self-esteem (McKechnie et al., 2014). A meta-analysis examining internet-based interventions for carers suggested that online programs may be more beneficial for carers' mental health when designed with a target population in mind (Sherifali et al., 2018). Moreover, interventions designed with a strong

theoretical basis and incorporation of behavior change techniques are associated with significant benefits for carers (Sherifali et al., 2018). When considering online supports, family and friends of paramedics in this study expressed the need for more understanding of the issues facing paramedics and formal support services for their mental health and wellbeing. However, they also expressed their own need for understanding how to communicate effectively and respond to their paramedic's experience of mental ill-health and suicidal distress. Family and friends highlighted potential barriers to accessing an online support program, including time availability and concerns for confidentiality. Enablers of accessing such a program would include assurance of confidentiality, ease of use and flexible availability.

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Author Contributions

This study was conducted by members of the project and research team at Everymind. SF conceptualized the study and supervision. CM prepared the first draft of the manuscript and JC, EF, and CM provided statistical assistance. Methodology and investigation were undertaken by all the authors, and also contributed to reviewing and editing the final manuscript.

Data Availability

The data that support the findings of this study may be available upon request and consultation with the funding body. Requests for access to the data should be directed to author PDP at philippa.dittonphare@health.nsw.gov.au.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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