– Not Government Policy –

Consultation paper:

Development of a whole-of-government Trauma Strategy for Queensland

Disaster preparation, response, and recovery

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What is this research about?

This paper summarises the evidence regarding the mental health and psychosocial well-being impact/s on individuals in disaster affected communities. A summary of the evidence relating to interventions and strategies to support the mental health and psychosocial well-being of individuals is provided. Recommendations for reform are presented to either implement and/or enhance strategies and interventions to improve individual and community mental health and psychosocial well-being in the preparation, response, and recovery from disasters in Queensland.

The context for this research

The intensity and frequency of disasters are increasing year-on-year globally (1). Queensland is the most disaster-prone state in Australia (2). The natural hazards resulting in disasters that mostly impact Queensland communities include bushfires, floods, storms, and cyclones. In Queensland, there have been more than 90 disasters reported from 2011–2022 (2). These disasters are perennial in nature and disrupt the normal functioning of communities (3). This disruption can be widespread across multiple industries, such as supply chain logistics, transport infrastructure, telecommunications, energy, and health care. The impact on multiple industries can result in a cascading and complex situation for communities to operate as normal. This disruption can impact an individual's normal ways of living and functioning. This disruption may be short-termed or extend for months, placing increased demand on various services within the disaster affected communities. From a health perspective, the disruption caused by disasters changes the way health services operate disrupting access to health services (4).

Within communities, individuals may be impacted by disasters in different ways. From a mental health perspective, disasters may result in an emergence of an acute stress disorder in people who have no previous mental health conditions, which may subsequently become chronic in nature. Additionally, disasters may result in an acute exacerbation of existing mental health conditions. Of high importance for both acute and chronic related mental health conditions is the early implementation of strategies and interventions to improve the well-being of individuals and communities before, during and after a disaster.

Throughout this summary it is clear that complex intersections exist between i) disasters, ii) mental health and psychosocial well-being, and iii) vulnerable individuals / priority populations.

The key findings

In developing the National Disaster Mental Health and Wellbeing Framework (5), a summary of evidence supporting the framework was produced. The summary of evidence supporting the framework included literature from an international perspective until 2021. The following is complementary to the evidence supporting the National Disaster Mental Health and Wellbeing Framework.

Disaster impact on mental health and psychosocial well-being

Depression, anxiety, and/or stress

The 2019/2020 Black Summer Bushfires were of a significant scale impacting multiple Australian jurisdictions. The Black Summer Bushfires were protracted in duration when compared to other bushfires. As such, several studies explored the mental health and psychosocial wellbeing of effects of these bushfires. In a study of 16- to 25-year-olds who reported direct exposure to the Black Summer Bushfires, participants were noted to have **higher levels of symptoms of depression, anxiety, stress** (6). Conversely, these participants were noted to have **lower psychological resilience** (6). In another study following the Black Summer Bushfires, 3083 individuals who had a high level of exposure to bushfires were surveyed, reporting **high levels of depression and anxiety** were experienced (7). Similarly, in another study, participants reported moderate to **severe levels of mental health symptoms, such as depression, anxiety, and stress** in the aftermath of surviving the Black Summer Bushfires (8).

This consultation paper focuses primarily on natural hazards resulting in disasters, however, Queensland specific research relating to COVID-19 showed that there were increased presentations to Queensland emergency departments relating to **anxiety** during COVID-19 lockdowns (9).

Anger and/or violence

There are increased incidences of anger and intimate partner violence following a disaster. It was noted that in high impacted bushfire areas, there was a reported threefold increase in **anger**, representing a significant problem when compared to areas of low or moderate bushfire impact (10). This was a similar finding from a study with 1017 participants from 25 bushfire affected community (11). Furthermore, following the 2009 Victorian Bushfires, individuals in bushfire affected regions were overrepresented in their **experience of intimate partner violence**. This was exacerbated in situations, such as change/s in employment, accommodation, and/or income (12).

Separation and/or home displacement

The mental health and psychosocial well-being of individuals is exacerbated when there is separation from family, home displacement, or when multiple aspects of an individual's lives are impacted. Individuals who experienced short-term *separation* from close family during or immediately following the 2009 Victorian Bushfires reported **high rates of post-traumatic stress disorder symptoms** (13). These symptoms were still evident 3-4 years following the bushfires. Individuals who had businesses inundated with flood water or those who had been *displaced* from home for more than 6 months were at a **high risk for post-traumatic stress disorder symptoms** (14). The mental health risk was elevated for those who had experienced *multiple inundations* of flood water, such as flood water inundation to their business, home, and/or farms (15). At six months following floods, individuals reported still being **distressed** about the flood (22%), with **anxiety** (16%), **post-traumatic stress disorder** (15%), **depression** (15%), and **suicidal ideation** (7%) (15).

Concurrent, compounding events

There has been an emergence of research relating to the concurrence of COVID-19 occurring simultaneously with other disasters, such as bushfires and floods (7, 16, 17, 18, 19, 20). One study of 755 participants aged 13 years or older had individuals regularly asked questions about their mental health via a mobile application. This study reported a significant **increase in anxiety** during both the bushfire and COVID-19. Furthermore, there was a significant **increase in depressive symptoms** during bushfires. There was a **decrease in personal control, motivation, meaning and purpose, self-esteem, and sense of achievement** for both COVID-19 and bushfires (16).

Mental health and psychosocial well-being support

It is noted that there is an **increased demand** for mental health and community support services from disasters (18). Mental health psychosocial well-being support may be offered by deployed disaster medical assistance teams (21), by health professionals who do not necessarily have specialised mental health training (22). The depth and type of services offered differs depending on the location of the disaster. It is acknowledged that several individuals and organisations provide mental health and psychosocial wellbeing programs and support services to individuals and communities affected by disasters. The intent of this section is not to list all available programs and support services. Instead, this section summarises the peer-reviewed literature whereby programs and support services are explicitly mentioned, while acknowledging that other programs and support services not mentioned below may exist to assist individuals and/or communities before, during, or after a disaster.

Programs and support services

Following the 2009 Victorian Bushfires, the *Access to Allied Psychological Services (ATAPS)* was delivered by General Practitioners. This service allows General Practitioners to **refer patients** with highly prevalent mental health symptoms, such as depressive and/or anxiety symptoms, to allied health professionals, such as psychologists, for free or low-cost. Of note, more than two-fifths of individuals affected by the bushfires **had not accessed mental health care before the bushfires** (23). This program has a good reach with 1,891 referrals made by 391 general practitioners and 65 case managers, and having sessions conducted by 194 allied health professionals. Overall, 9,949 sessions were delivered to 1,535 (or 81% of the referred) individuals (23).

The *Skills for Life Adjustment and Resilience (SOLAR)* program was implemented following two separate bushfires in 2015. A small number of participants completed a post program questionnaire. The participants stated that the **program was beneficial**, and they would recommend the program to others (24). In a separate evaluation, SOLAR was delivered one-on-one by trained community members across five weekly sessions versus self-help control condition comprised a 5-week programme of self-directed resources distributed weekly via email (25). The SOLAR programme was effective in **improving anxiety, depression, and posttraumatic stress symptoms** over time (25).

The *Skills for Psychological Recovery training and support program* has several interventions that practitioners use frequently following a disaster, such as: building problem solving skills, promotion positive activities, managing reactions, promoting helpful thinking, and rebuilding health social connections (20). Only a small number of practitioners reported barriers to this program implementation, such as already being **satisfied with their existing** mental health and psychosocial well-being approach and having a **lack of time** (20).

The National Mental Health Commission report on *Priorities in action: Examples from experience, supporting Australians' mental health through disaster* outlines several programs and services offered throughout Australia (26). Of note are programs specific to Queensland:

- Queensland Government's Tackling Regional Adversity through Integrated Care (TRAIC) program (https://clinicalexcellence.qld.gov.au/priority-areas/service-improvement/tackling-regional-adversity-through-integrated-care-traic), providing funding for local mental health support services.
- Birdie's Tree, created by the Queensland Centre for Perinatal and Infant Mental Health (http://www.childrens.health.qld.gov.au/natural-disaster-recovery/), providing resources for families.

Other considerations

Community involvement

Being moderately **involved in local voluntary associations or groups was of benefit to individual metal health** outcomes (27). However, those with high or no involvement resulted in poor outcomes (27). The authors of this work suggest that the most benefit in mental health wellbeing would come from supporting participation by individuals with little to no current involvement in community groups / associations (27). Some group involvement in local voluntary associations or groups leads to **lessened posttraumatic stress disorder** following a disaster (27).

Health care workforce

In the rural context, **undertaking mental health training** of any description had a **positive impact on staff wellbeing** (28).

Mild symptoms

Following a disaster many individuals may have mild to moderate symptoms of distress that may persist for weeks and months, however, this distress may **not result in meeting a mental health related diagnostic criterion**. As such, mental health and psychosocial support may not be prioritized or offered for these individuals, despite the distress disrupting an individual's ability to function (20).

Levels of evidence

The evidence relating to the mental health impacts from disasters is growing, however remains mostly **descriptive in nature and based on single disaster events**. The evidence relating to effective strategies and interventions before, during and/or after a disaster is scant. This may be the case as **conducting research and evaluation after a disaster is challenging**. The key challenges include obtaining funding, timely ethical reviews, mobilising researchers, obtaining participant consent in complex situations, and limited ability to conducting high levels of research such as randomised control trials (29).

Psychological first aid

Psychological first aid was scantly mentioned in the evidence reviewed. However, Psychological first aid has become a widespread intervention of choice following exposure to conflict or disaster. The impact of psychological first aid following a disaster is mostly unknown (29).

What does this research mean for policymakers

Reform should not be considered in isolation from recommendations in other documents of national significance. The *Royal Commission into National Natural Disaster Arrangements Report 2020* makes a recommendation for "prioritising mental health during and after natural disasters Australian, state and territory governments should refine arrangements to support localised planning and the delivery of appropriate mental health services following a natural disaster" (Recommendation 15.3).

Policymakers should be aware of key national documents, supported by the National Mental Health Commission and National Emergency Management Agency, that focus on mental health related topics and disasters:

- National Disaster Mental Health and Wellbeing Framework (5)
    - Informing the Framework - Supporting Evidence (30)
    - Our Stories Beyond the Disaster, 2021 (31)
    - Priorities in Action: Examples from Experience, Supporting Australians' mental health through disaster (26)

Additionally, there are a number of key national and state documents that focus on disasters and have some aspects, but not a focus, on mental health:

- Australian Disaster Resilience Handbook Collection, Health and Disaster Management (32).
- Queensland State Recovery Plan (33).
- Queensland Health Disaster and Emergency Incident Plan (34)
- Queensland Strategy for Disaster Resilience 2022–2027 (2).

Further, *this consultation paper* provides a contemporary Australian focused overview of peer-reviewed literature of relevance to Queensland. This too should be considered when making reform.

Options for reform

The following options for reform are structured against the disaster phases of preparedness (before a disaster), response (during a disaster), and recovery (after a disaster). This is important as different government departments or organisations may have an emphasis on supporting individuals and communities in different disaster phases.

All phases

The following recommendation is made to strengthen mental health support throughout all disaster phases:

1. The Royal Commission into National Natural Disaster Arrangements suggests that sharing of identified lessons is important (35). Government departments and organisations with a focus on the mental health and well-being of individuals and communities following a disaster should meet annually to **share and document lessons learned**. These lessons learned documents should be publicly available, allowing organisations the ability to incorporate lessons.
2. **Lived experience should be included in any disaster reporting and lessons learned**. People with lived experience are often excluded from decision making and agenda setting (36). To adequately learn from a disaster, consideration should be given to **understanding the mental health impact and support strategies from previous events**. Many of the program evaluations above in the key findings were prevalence driven and did not include individual lived experience and how the program impacts their mental health both short- and long-term post disasters (20).

3. There should be agreed methodologies for the evaluation of mental health and psychosocial wellbeing **programs and strategies**. This will provide insight into appropriate strategies to enhance the mental health of individuals in disaster affected communities.
4. There should be predetermined **agreed methodologies for evaluating and researching** the mental health and wellbeing of individuals and communities affected by disasters.

Preparedness phase

The preparedness phase should consider a focus on strengthening local community capacity in readiness for a disaster. This is an opportune time to test and practice aspects of any disaster plan.

1. The Royal Commission into National Natural Disaster Arrangements, 2020 suggests that local providers should **build local partnerships and establish referral pathways** before a disaster. These partnerships should be tested in non-disaster times.
2. **All government and non-government organisational disaster plans should include a hierarchy of mental health care**, catering for individuals and communities, with predetermined referral pathways between levels of care. This should include a three-tiered approach of psychological first aid for immediate response (level 1), individual support for mild to moderate problems (level 2), and intensive ongoing treatment for significant mental health conditions (level 3) (National Disaster Mental Health and Wellbeing Framework).
3. There should be psychological / mental health **training for all first responders in organisations** that assist in disasters. This should be considered **as equally important as obtaining a first aid certificate**.
4. A **communication strategy** should be pre-established. This should include the entire suite of available mental health services for a community and ways to access these services (23). This should be **publicly available and easily accessible**.

Response phase

1. There is a need for **mental health professionals to be included as essential members of** any health team deployed, for example disaster medical assistance teams.
2. Specific strategies should be developed for the deployment of **mental health professionals to regional and remote areas**.
3. There is a need for **professional support for healthcare workers** in disaster affected communities (31)

Recovery phase

1. Mental health and psychosocial well-being **recovery should commence concurrently with the response** phase.
2. Services and programs need to be **offered in community for at least 4 – 5 years** after a disaster. This aligns with the duration of some mental health symptoms as evidenced above, and recommendations from the National Disaster Mental Health and Wellbeing Framework.

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