Effect of Social Support on Mental Health: The Study of Social Networks in Times of Crisis

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Abstract

Social support is crucial for mental and emotional well-being, growth, and lowering the risk of psychological discomfort. Young people have access to a variety of peer-socialization options, including those provided by social media. The impact of social support on mental health has garnered increasing attention, particularly during times of crisis when emotional resilience is most tested. Social networks both traditional and digital serve as critical channels for providing support, influencing individuals' psychological well-being during events like pandemics, wars, and natural disasters. This review explores the dual nature of social networks in promoting mental health and contributing to psychological distress. The article delves into the many forms and origins of social support, explores theoretical frameworks like the buffering hypothesis and social support theory, and emphasizes the disproportionate impact of crises on vulnerable groups, such as children, women, and the elderly. Recent studies employing machine learning techniques such as logistic regression, decision trees, and sentiment analysis have been effective in identifying emotional trends and distress signals in online interactions. The evaluation also discusses how social media may help with mental health issues, including cyberbullying and social isolation, as well as how it can exacerbate these problems. Furthermore, the paper examines the limitations of current behavioral models and technological interventions while advocating for human-centered approaches in digital mental health solutions.

Keywords: Social Support, Mental Health, Social Networks, Crisis Events, Anxiety and Depression, Machine Learning, Sentiment Analysis, Digital Support Systems, Emotional Well-being, Vulnerable Populations.

Introduction

Mental health is increasingly recognized as an essential component of overall well-being. The WHO emphasizes that "there is no health without mental health," underscoring the need to integrate mental well-being into broader health definitions and policies [1][2]. Health determinants span multiple dimensions physical, psychological, social, spiritual, intellectual, and environmental among which social networks play a pivotal role in influencing mental health outcomes.

Public health officials throughout the globe are understandably worried about the disturbing rise in instances of mental health disorders including melancholy and anxiety (Khattak et al., 2023). Currently, over 970 million individuals approximately one in every eight people are affected by mental disorders, resulting in profound social, economic, and human rights implications worldwide. These conditions often lead to fear, distress, and misunderstanding, further exacerbated by stigmatizing portrayals in mainstream media. In particular, social media, while

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sometimes perpetuating negative stereotypes and cyberbullying, can also foster community building, peer support, and mental health awareness when used conscientiously.

A person's capacity to cope with stress and maintain mental health can be enhanced through the availability of both material and psychological resources within their social network [3]. There are two main types of support: received support, which comes from the network in the form of concrete aid and objective activities, and perceived support, which is an individual's subjective feeling of support's availability and satisfaction. These dimensions play critical roles in buffering stress and promoting resilience, especially in times of crisis.

Social function encompasses the nature and extent of an individual's interactions, social roles, and network connectivity [4]. Evaluations of social functioning often consider role fulfillment and the size and strength of perceived support networks, typically including family, friends, and colleagues. Support can be both actual providing direct help and emotional offering empathy, respect, and understanding.

Crises, characterized by disruptive events resulting in physical, emotional, or structural losses, intensify the importance of effective social support. During such events, social networks including digital platforms serve as critical tools for communication, emotional support, information dissemination, volunteer coordination, and collective resilience [5]. Social media, in particular, has evolved into a vital channel for emergency response agencies and affected individuals to exchange information and mobilize support. The purpose of this research is to determine if and to what extent social assistance during times of crisis affects mental health outcomes.

Structure of the Paper

The structure of this paper is as follows: Section II defines the concept and types of social support. Section III discusses mental health effects during crises. Section IV explores the role of social networks in Times of Crisis. Section V presents a literature review. The work is concluded and future research objectives are outlined in Section VI.

Concept Of Social Support

Social support refers to the subjective assessment of the several types of assistance that a person gets from friends, family, and significant others. People's feelings of anxiety and sadness have been proven to be significantly predicted by their perception of social support. The likelihood of experiencing mental health issues including depression, anxiety, thoughts of suicide, and eating disorders is higher among those who report lower amounts of social support. Losing a child is a devastating experience, and many parents struggle with mental health issues. Some research suggests that social support may alleviate some of this stress and help with mental adaptation [6]. Two hypotheses that try to explain the effects of social support on mental health are the buffer model and the main effect model. Social support is proposed to have both preventative and curative effects on people's physical and mental health in the primary effect model, and to lessen the negative effects of stressful situations in the buffer model.

Definitions and Types

Social support is described as a basic kind of human contact that is integral to the human experience. Individuals seek and offer assistance at different points in their lives. Interpersonal contact and connection, love and understanding, care and concern, affection and companionship, financial aid, and respect and acceptance are all examples of social supports. Social support

affects both physical and mental health throughout life, and it may become even more crucial as people age [7]. The elderly are often portrayed in negative ways, as being socially isolated and unwanted.

The five main types of social support are as follows: (a) informational, (b) emotional, (c) esteem, (d) support from social networks, and (e) physical support [8]. Figure 1 shows the many kinds of social assistance.
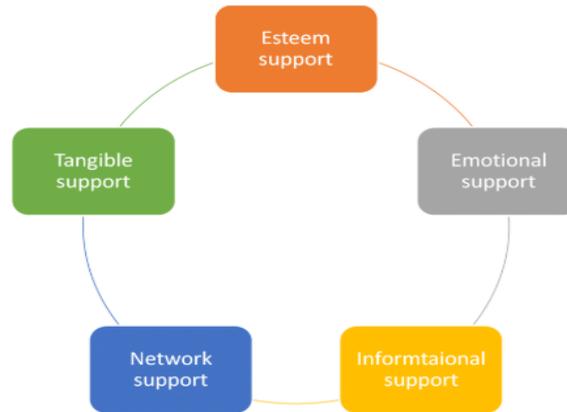

Fig. 1.   Types of Social Support

•   Informational support refers to communications that include information, including recommendations or criticisms of behaviour.

•   Emotional support is associated with expressions such as empathy, compassion, worry, and care.

•   Esteem support are the signals that highlight the inherent worth, competence, and potential of an individual.

•   Social network support refers to signals that increase a person's feeling of belonging to a group with shared interests or experiences.

•   Tangible support is defined as physically delivering necessary commodities and services to recipients.

Role of Family and Peers

Peer and familial support have been recognized as a key component in fostering healthy development among young people worldwide. This support helps with mental and emotional growth that continues throughout life. Prior studies have shown that social support may alleviate symptoms of psychopathology including anxiety and depression and improve overall health and well-being [9]. Theoretically, however, not every kind of social assistance has the same positive impact [10]. For example, research by Cavanaugh and Buehler showed that having supportive parents and peers lowered the likelihood of loneliness and social anxiety, respectively, in terms of psychological health. Social assistance may also have different degrees of efficacy for different people.

Theoretical Background

There are some backgrounds discussed below:

1) Social Support Theory

The goal of social support theory is to help people deal with illness in the best way possible by meeting their basic needs. People risk losing their freedom and having their activities hindered by having too much help in their lives. The best way for patients to approach therapy and rehabilitation is with optimal support, according to the research [11][12]. A person's social support system acts as a buffer, reducing the impact of the stressor on their psychological functioning. Quality of life assessment may be improved at any point in the recovery process with the use of social assistance. Neither despondency nor isolation were experienced by the patients who reported high levels of perceived social support.

2) Buffering Hypothesis

The mental health and well-being of individuals were impacted by anxiety and depression resulting from work-related stress, and social support may mitigate the adverse impacts of stresses. According to the stress-buffering paradigm, social support reduces social stress and improves physical health when faced with stress and other external situations. Personal characteristics, such as mental toughness and effective ways of dealing with stress, can have a role in how much of an impact stress has on the workplace [13]. Resilience, social support, and healthy coping mechanisms may all play a role in getting individuals back on their feet after challenging events like natural disasters or tragic illnesses.

Mental Health Effects During Crises

In times of disaster like pandemic outbreaks, natural disasters and wars, mental health tends to be adversely affected. Individuals can be stressed, worried, depressed, and helpless. Emotional well-being is aggravated by uncertainty, loss and isolation. The vulnerable groups suffer more effects and when these effects are not solved early, it may have long-term psychological effects.

Psychological Impact of Events

Discuss the impacts of psychological events below:

1) Pandemics

The bulk of studies examining the mental health of individuals during the pandemic aimed to describe the phenomenon and its catastrophic impacts. There is a lack of coherence in the existing theoretical frameworks on the relationship between the many aspects of the pandemic and the negative impacts on mental health [14][15]. Countless research have looked at the various ways in which the COVID-19 epidemic has affected mental health, from the perspective of individuals, families, and society as a whole. There has been an increase in the prevalence of mental health problems such depression, anxiety, suicidal ideation and behaviour, alcohol abuse, and psychophysical symptoms like nausea, vertigo, insomnia, and loss of appetite during certain periods of the epidemic.

There were substantial psychological repercussions on all of the aforementioned levels as a result of the preventative and restrictive rules implemented by national and international organisations in the majority of nations in an effort to contain the virus and safeguard public health. Some of the negative mental health outcomes associated with the constraints include withdrawal from social interactions, increased aggression and fear, negative emotional responses, and risky behaviour changes such drug misuse, social phobias, and avoidance.

2)   Wars

Mental health suffers both immediately and over time as a result of armed conflicts, and survivors of these tragedies often have difficult decisions about how to go with their lives. The first signs of war-related mental problems among service members appeared around the turn of the twentieth century, but most people agree that civilians who do not fight in the battle bear the brunt of the psychological toll that violence takes [16][17]. A major detrimental impact on human health and well-being is to be anticipated given that around 2 billion people worldwide now reside in places affected by armed conflicts, which cause bloodshed, displacement, damage to infrastructure, and interruption of public health services.

3)   Natural Disaster

Natural disasters, which are characterized by large-scale catastrophic events, are becoming more frequent and more intense. More and more research is showing that disasters greatly affect people's psychological well-being, and that this is generally associated with trauma and the disruption of people's personal and financial lives. Some people endure the negative psychological impacts of catastrophes, even though the majority of people who go through traumatic experiences as a result of disasters do not end up with mental diseases. These impacts on mental health start soon after a catastrophe and might last for a long time [18].

A variety of mental health issues, including PTSD, anxiety, depression, and others, may impact almost one-third of catastrophe survivors. As a result, the value of mental health evaluation in catastrophe response plans is becoming more acknowledged [19]. The reason behind this is that while the majority of people manage fine after a disaster, there are a few who don't get back to normal after the fact. Some suffer from trauma directly linked to the disaster, others have delayed psychological impairments, and a small percentage of these end up with more severe mental health problems down the road, like PTSD. The effects of a calamity might, therefore, continue long after it has passed.

B.   Common Mental Health Conditions

Some of the common mental health conditions (Stress, Anxiety and depression) are explains below and in Figure 2:

Fig. 2.   Mental Health Conditions Architecture

1)   Stress

An immunological response and subsequent negative health effects may be caused by stress. Distress in the mind sends a message to the body that something is out of whack, which in turn

causes the immune system to respond by producing inflammation. An increased vulnerability to several diseases is connected with the inability of the body to cope with the chronic inflammation that develops in response to prolonged stress [20][21]. Immune disorders like rheumatoid arthritis and psoriasis might develop as a result of stress over time. Atherosclerosis and coronary heart disease are two cardiovascular disorders that are exacerbated by stress and inflammation. A number of respiratory conditions, including asthma, pulmonary fibrosis, and COPD, are also influenced by inflammation.

2)   Anxiety and Depression

Mental diseases are among the leading causes of disability and contribute significantly to the worldwide disease burden. The two most common mental diseases, anxiety and depression, often cause more health problems than severe mental illnesses. People who suffer from depression and anxiety may find that their general quality of life declines and their functioning is severely limited [22].

It is very uncommon for people suffering from depression to have symptoms that are similar to those of anxiety disorders. Also, many people with anxiety problems also suffer from depression. It is possible for two clinical entities to coexist, meeting the diagnostic requirements for both illnesses [23]. Although it may sometimes be difficult to tell the difference between the two, it is crucial to recognize and treat both. greater health care expenses, a greater chance of comorbidities, and negative social and personal repercussions have all been linked to anxiety and depression.

C.   Factors Influencing Mental Vulnerability

"The potential for damage in a person or system in reaction to an external factor" is one definition of vulnerability. As a result, a stimulus would have a greater potential to do damage to a vulnerable individual or group. Vulnerable populations, as it pertains to the mental health effects of conflict, are those that exhibit certain traits that make them more likely to have more severe or frequent cases of mental health issues. External and internal elements, including as one's genetic makeup, physiological makeup, interpersonal relationships, cultural norms and practices, and the presence or absence of major life events and stresses, may all contribute to an individual's degree of vulnerability. These elements may both alone and in concert increase an individual's susceptibility. People who have certain characteristics are frequently labelled as vulnerable, such as women, children, prisoners, people with disabilities, LGBTI people, IDPs (Internally Displaced People), etc., emphasizing that these groups are more likely to suffer harm or be impacted by outside events and stressors.

•   Vulnerability factors for women: The plight of women is particularly precarious in war zones. The likelihood of gender-based violence, which is linked to mental diseases, increases the likelihood that women may have psychological effects as a result of conflict.

•   Vulnerability factors for children1: Children in war zones are at a heightened risk of experiencing psychological and social harm, as well as lost educational and employment possibilities.

•   Vulnerability factors for elderly people: In addition, those with disabilities, the elderly, and the impoverished are more susceptible to harm in war zones. As a result of their worse health status, worse living circumstances, and weaker social network, these populations generally rely on a functional healthcare system.

Their vulnerability to mental health issues may be amplified by any or all of these variables [24]. People whose mental health has been negatively impacted by a conflict are more likely to have low socioeconomic position, which includes things like a lack of education, low income, few assets, and unemployment.

Role of Social Networks in Times of Crisis

A person's ability to cope with and maintain mental health in the face of adversity depends on the availability of emotional, informational, and practical support systems, all of which may be found via social networks. It also acts as the gateway to mental health services by motivating people to use mental health services, and improving treatment compliance among the needy. Social network is shown in Figure 3.

Fig. 3.   Social Network

Traditional Vs. Digital Networks in Providing Support

Support systems depend on traditional networks like the family, friends and community groups and social support systems are the result of all these formalities. These networks make it easier to access the essentials for mental health, including emotional support, practical help, and a feeling of belonging [25]. Numerous studies have shown that having social support improves mental health. Adults gain from having friends, relatives, and spouses to lean on while dealing with depression, while children benefit greatly from having their parents' support.

As a potential advantage of social media use, online social support has grown in recent years. According to some research, communities may find social support on social media, especially when people utilize it to connect with others. Researchers have shown that people in remote areas or who have similar life experiences may benefit psychologically from increasing their number of online contacts since it increases their perception of social support. Young people's use of social media has been associated with an increase in their capacity to form online communities and mutual support networks. In addition to enhancing communication skills with individuals already in one's life, social media usage may open doors to people outside of one's immediate circle. Online social assistance of many kinds (emotional, educational, etc.) using various mediums tailored to each type's specific goal.

Social Media's Dual Impact on Mental Health

The growth of social media over the past two decades has been rapid and unprecedented. More than 4.89 billion individuals, or 60% of the worldwide population, are active social media users, according to research from 2023.Among these users, platforms like Facebook, YouTube, Instagram, and TikTok are the most popular, each serving different demographic groups. Younger users, particularly teenagers and young adults, are more likely to be active on

Instagram, TikTok, and Snapchat, while older adults often favor Facebook. The increasing accessibility of smartphones and internet connections has driven this rapid adoption of social media. With capabilities like algorithmic feeds that are personalized to each user's tastes, limitless scrolling, and push alerts, these platforms are made to be interactive. This design has raised concerns that social media usage can become excessive or addictive, leading to negative mental health outcomes. Impact of social media is shown in Figure 4.

Fig. 4.   Impact of Social Media on Mental Health

1)   Negative Impacts of Social Media on Mental Health

a)   Social Media and Depression

When it comes to mental health concerns and social media, depression has received a lot of attention. People who spent more than three hours a day on social media were more likely to suffer from mental health issues including depression. The reasons for this association are multifaceted. People often compare their own lives to the idealized, perfectly groomed versions of others' lives, which is a major factor. Negative self-perception and inadequate sentiments, which are known to contribute to depression, could emerge from this.

b)   Social Media and Anxiety

Anxiety is another common mental health condition linked to social media use. Research suggests that social media users may be more prone to anxiety, maybe as a result of the stress associated with constantly updating one's online profile or following all the newest trends. Because users may worry about losing out on events that their friends are posting about online, the "FOMO" (fear of missing out) problem is especially pertinent.

c)   Cyberbullying and Harassment

Cyberbullying and online harassment are two of the most detrimental consequences of social media. Cyberbullying is more pervasive and may happen at any moment than more conventional types of bullying. Cyberbullying may cause serious mental health problems for its victims, including despair, anxiety, and even thoughts of suicide. Anonymity on social media makes bullies feel safe enough to act out without fear of repercussions.

d)   Social Media and Loneliness

Paradoxically, social media may amplify feelings of isolation, despite its stated goal of promoting connection. People who reported feeling lonely were more likely to have a high social media use rate. The lack of depth in many online relationships, the tendency to passively consume material (e.g., skimming through feeds without participating), and the rise of digital communication over in-person socializing are all possible causes.

2)   Positive Impacts of Social Media on Mental Health

a)   Social Media as a Tool for Connection

The aforementioned drawbacks aren't the only ways social media might hurt mental health. The capacity to build communities of support and cross-border connections is a major strength of social media. Social media provides an opportunity for those who may feel lonely in their real lives to connect with others who share their interests and build genuine relationships.

b)   Mental Health Awareness and Advocacy

The promotion of understanding and support for mental health issues has found a significant home on social media. Millions of people have interacted with campaigns promoting mental health awareness and decreasing stigma, such as #BellLetsTalk and #MentalHealthAwarenessMonth. Instagram and TikTok have become popular places for mental health advocates and experts to dispel misunderstandings, provide advice, and share techniques for coping with mental health issues.

c)   Teletherapy and Digital Mental Health Resources

The rise of teletherapy and online mental health services is another positive development facilitated by social media and digital platforms. Many mental health professionals now offer therapy sessions through video conferencing apps or specialized platforms like Better Help and Talk space. Particularly for those living in rural regions or who have difficulty gaining access to conventional in-person treatment, these programs have increased the availability of mental health care.

V.   Literature of Review

This section presents a literature review on the impact of social support and social networks on mental health during crises, emphasizing emotional support types, digital interactions, machine learning models, and vulnerable population responses.

Garg et al. (2025) argue that social networks have indeed become an integral part of their lives, with more than 3 billion people using this network. Although it has many advantages for maintaining relationships with friends and families, spreading information, and accessing news and entertainment, it has also led to an alarming problem, i.e., negative effects on mental health. They have used LR and Gaussian Bayes models to extract important features in order to understand how social media affects mental health. It summarizes research on the pros and cons of social media and how it affects public, policy, and clinical decision-making [26].

G et al. (2025) study investigates its effects on mental well-being through the application of sophisticated Machine Learning techniques, including RF (97% accuracy), DT (91.75% accuracy), XGBoost (95% accuracy), and NB (92% accuracy). By employing sentiment analysis and NLP on user-generated content, the research identifies emotional trends, behavior patterns, and early indicators of psychological distress. The findings highlight age-specific tendencies, particularly among teenagers and young adults, where excessive use of social media platforms is linked to heightened risks of anxiety, depression, and isolation, despite the platforms' potential to offer support networks and mental health resources [27].

Hsu et al. (2024) aims to automatically classify social support threads shared by users on public social network platforms. Recognizing the growing role of social platforms in providing emotional support, this study focuses on identifying different support types using sentiment

analysis. By incorporating data augmentation, three datasets were created for this analysis. They used existing models to compare classification performance. The results indicate that while data augmentation can sometimes improve model performance, the quality and context of the original data are crucial for accurately identifying emotional support. The study also found that current models struggle to distinguish subtle differences between support categories, especially when the data is imbalanced [28].

Patel and Sari (2024) aids in the study of social media users' actions, particularly as they pertain to the pursuit and dissemination of mental health resources. Understanding the connection between health beliefs, the amount of information sought and shared about mental health, and the perception of peer support is key to the Health Belief Model's (HBM) implementation. This research uses PLS-SEM to analyze 230 samples of data collected from a web-based survey that aimed to reach social media users in Indonesia. The findings of this research showed that characteristics related to HBM, such the perceived severity, did not significantly influence the use of social media for obtaining and sharing information on mental health [29].

Izzouzi and Küçüktütüncü (2024) offer an overview of the digitization of mental health in recent years, more specifically through immersive technologies. They explore the benefits and challenges of integrating these technologies into clinical practice and highlight tools that could revolutionize the field. They propose directions for further research and emphasize that while digital advancements are valuable, immersive technologies should be used to enhance rather than replace traditional practices, always preferring a human-centered approach [30].

Xu, Zhang and Tan (2023) test and incorporate social science theories into the modelling of external social networks in order to provide an explanation of how reciprocal social support develops. They have tested the suggested models and their hypothesis via a number of simulated tests. The findings demonstrate that their assumptions can all be used to explain how reciprocal social support forms and that their suggested models are capable of accurately capturing the reciprocal characteristics seen in actual social networks. In order to better understand how users join in online groups, either to provide or get more help, their research models external social networks and hypothesizes user behaviour of support exchange [31].

Table I presents a summary of the literature review, highlighting each study's focus, approach, key findings, challenges, and proposed future directions.

Reference	Study On	Approach	Key Findings	Challenges	Future Direction
Garg et al. (2025)	Positive and negative impacts of social media on mental health	Logistic Regression and Gaussian Naïve Bayes	Identifies both positive (connectivity) and negative (mental health decline) effects of social media; supports policy and clinical insights	Limited feature extraction; lacks demographic-specific insights	Improve model granularity; expand dataset diversity
G et al., (2025)	Emotional trends and	Random Forest,	High accuracy in identifying	Platform bias, lack	Real-time detection

	distress indicators on social media	Decision Tree, XGBoost, Naïve Bayes; NLP & Sentiment Analysis	distress patterns; strong correlation with anxiety/depression in youth	of real-time monitoring	models; personalized interventions
Hsu et al. (2024)	Classification of emotional support on public platforms	Sentiment Analysis, Data Augmentation, ML models	Classification of support types possible; augmentation sometimes improves results	Difficulty in detecting nuanced support types; imbalanced data	Develop robust models with better context handling
Patel and Sari (2024)	Seeking/sharing mental health info on social media	Health Belief Model (HBM), PLS-SEM	Perceived peer support influences behavior; perceived severity has limited effect	HBM may not fully capture online behavior complexity	Expand behavioral models; explore cross-cultural variations
Izzouzi and Küçüktütüncü (2024)	Role of immersive tech in mental health	Conceptual review	Highlights digitization and tech benefits for clinical support	Risk of over-reliance on tech; need for clinician balance	Human-centered designs; hybrid treatment models
Xu, Zhang and Tan (2023)	Formation of reciprocal social support in networks	Simulation experiments, behavioral modeling	Successfully models support exchange and reciprocity	Complexity in modeling user intent and diversity	Apply to real-world groups; enhance behavioral realism

Table I. Comparative Analysis of Literature Review on The Impact of Social Support and Social Networks on Mental Health in Times of Crisis

Conclusion and Future Work

The dynamics of both offline and online social networks have a profound effect on the many ways in which social support affects mental health, especially during times of crisis. While social media provides platforms for connection, emotional support, and mental health awareness, it also introduces risks like anxiety, depression, and cyberbullying. Machine learning techniques such as logistic regression, decision trees, and sentiment analysis have been effectively employed to detect emotional trends and mental distress in online behavior. Research also reveals that emotional support from family, peers, and online communities plays a crucial role in mitigating mental health issues during pandemics, wars, and natural disasters. However, challenges remain, including platform bias, difficulty in classifying nuanced emotional support,

and limitations in behavioral models like the Health Belief Model (HBM). Despite its transformative potential, technology in mental health must be balanced with human-centered care approaches.

Improving model sensitivity to nuanced emotional signals, investigating cross-cultural behavioural patterns, and creating real-time monitoring systems for early mental health treatments should be the topics of future research. Additionally, integrating immersive technologies with traditional therapy in a hybrid model could enhance treatment accessibility and personalization.

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