Psychosocial Response Protocol for Pandemic Management

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Case Report

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Abstract:

Covid-19 is re-defining life globally. Human beings are trying to address the social, economic and political implications of the pandemic through various policy initiatives. But, the psychosocial impact of the pandemic remains implicit and hence unaddressed. It is crucial to restore the lost social and psychological equilibrium through effective psychosocial management of the pandemic. This study tries to establish the need such an approach and suggest ways for accomplish. In the first part, an attempt is made to review the psychosocial impact of the pandemic. The second part undertakes a case examination of the acclaimed 'Kerala model'. The model specific individual, community and institutional level initiatives that helped in effective pandemic management are analysed. Such case specific explorations can help to develop Psychosocial Response models. This can help to develop standard guideline for dealing with future emergencies and help mainstream psychosocial wellbeing.

Key words: Kerala model, Covid-19 Management, Psychology, Wellbeing, Community Readiness, Psychosocial First aid, Standardized guideline.

1. Background

Covid-19 brought the world to a grinding halt. It altered conventional ways of living. The virus brought about a silent revolution by shaking the socio-economic and psychological fabric of society. A sense of disconnect from oneself and the world confronted human race. People have lost 'their feeling of safety' (Jung & Yonsei 2020). Social support systems such as educational institutions, religious places, markets, and workplaces had to be closed to prevent the virus spread. Leaders, communities and governments world over, established lockdown with a heavy hand. There is a complete breakdown of social support systems all over the world (Jung et al, 2020). As the highly contagious virus spreads and death toll climbs, human being's very existence is under threat. Global response to the virus seems to be limited to political, economic, and health realms. Many steps have been taken to address the explicit, evident aspects. For instance, major financial packages were announced to recover from the economic impact of the pandemic (Mudgill, 2020). The psychosocial trauma brought on by the virus is huge. But since its effects are implicit, it is often neglected. This gap in psychosocial strategy need to be addressed urgently. For this it is essential to gain some insight into the psychosocial impact of the trauma.

2. Method

An attempt is made to first trace the psychosocial impact of Covid-19. The first part of the study goes through a review of available literature to analyse the impact of the pandemic on society. Psychosocial impact of the pandemic and measures taken to address it were the main themes, explored by the review. The data collected through this method revealed a gap in psychosocial management of the pandemic. The second part tries to address this gap by utilizing a critical case study approach of the acclaimed 'Kerala model'. Attempts were made to analyse the psychosocial aspects and suggest a Psychosocial Response Protocol (PRP) to manage the pandemic. This approach can help to develop guidelines for mediating individual, community and institutional level psychosocial response to emergencies. It can also help mainstream psychosocial wellbeing.

3.Psychosocial impact of the pandemic

Covid-19 can be regarded as a 'life re-defining' pandemic. The virus resulted in quarantine of the infected, lockdown to prevent the spread, and the staggering loss of life. These are experiences regarded as similar to wars or social oppressions (Garg, 2020). Interviews with domain experts, reveal an escalation of mental health crisis world over due to the challenges brought on by the pandemic. The pandemic may act as the trigger for many subclinical cases to move over to the clinical zones (Garg, R K 2020). Mentally ill patients show worsening of symptoms due to break in pattern of daily routine, lack of social interactions, exercise opportunities and access to proper mental care facilities and increasing screen time (WHO, 2020). Experts predicts a rise in level of 'public anxiety' along with stress, irritability, anger and insomnia among general population (Jung et al, 2020). Such a scenario can give rise to a second wave of mental health pandemic, which affects overall psychosocial equilibrium (Owings & Hirschfeld,2020). This seems to be the case when effect of previous pandemic outbreaks is examined (Neria Y, 2020). Further exploration is critical to understand the psychosocial impact of the pandemic and take steps to restore the equilibrium.

3.1 Job Loss

Job loss has been a major economic side effect of the pandemic. Highest amount of job loss (11%) has been reported by April 2020 among young adults in the age group of 20 to 24. This trend is alarming as young adults accounts for 8.5 % of the total employed people in the country in 2019-2020 (Jebaraj, 2020). Around ten thousand migrant workers lost their job and income during lockdown in India. When the pandemic hit, they were the worst affected (Pandey, 2020). Non-resident individuals (NRIs) faced 'outsider label' from both home country as well as foreign land during this crisis. Many have lost their job, a major stressor, in these uncertain times. Even if the pandemic situation subsides many prefers to stay back home, instead of seeking work elsewhere (Sebastian, 2020). Economies are forced to fight the effect of unemployment while promoting economic revival. If not dealt with sensitively 'unemployment and poverty' can become the new source of 'unrest' among working adults.

3.2 Work life balance

Boundaries between work and family life have blurred. Lock down impacted nuclear families severely as they can no longer depend on institutions or external entities, for help. This increases stress levels, which in turn burdens each family member. Rising marital tensions and arguments between spouses are indicative of this trend. Along with such daily hassles, additional routine has been added for parents, by online teaching-learning platforms for young children. The situation is particularly demanding for working parents, parents with little or no technology exposure, parents of special needs children and of young children. There is a role expansion with increased responsibility among parents. Many are seen struggling to balancing between the roles of parent, caregiver, teacher, worker and friend. A lack of in-person access to professionally qualified trainers, therapists or specialised institutions for their kids, had put parents of special needs children, under severe strain (UNESCO, 2020). Women are going through extensive pressure, to balance their multiple roles, more than their male counterparts. During this lock down changes in sleep patterns, increased frustration, pressure, guilt, fear and anxiety are reported more among women than the general population (Kataki, R 2020). Lockdown also seems to increase cases of child abuse, domestic violence, and gender-based violence (WHO, 2020).

3.3 Children and Adolescents

Children and teenager are regarded as ideal candidates for causing community spread as 'asymptomatic' carriers. Hence educational institutions are closed down and their movement severely restricted. The current education system relays entirely on online class rooms and webinars. This in turn, has risen the consumption of electronic content such as games, movies and social media apps. This approach opens up, a whole new array of psychological vulnerability among the young population. Studies indicate that this will have long term mental health consequences on the young population (Sellgren, 2020). Rising suicide rates among students are indicators of this trend (Naha, 2020). Apart from the usual emotional issues, family discord and drug abuse, lock down scenario has now added, lack of assess to smart devices for attending online classes, rising stress levels and lack of access to friends as probable causes of student suicide (Bose, 2020)

3.4 Older Adults

Older adults are vulnerable to the virus due to a weak immune system. This limits their mobility severely, often confining and isolating them to their homes. Such an environment leads to rising feeling of loneliness, depression and death anxiety among older adults (Fernandes, 2020). Those with severe underlying medical conditions like heart or lung disease or diabetes have also been reported vulnerable by Centre for Disease Control and Prevention (CDC, 2019). Such physical vulnerabilities work as added triggers to the mental vulnerability of these groups.

3.5 Social violence

Rising instances of violence and aggression, are reported globally. Society displays 'stigma' towards those suspected of or suffering from the pandemic and even the frontline health care workers (Jung et al, 2020). Cases of forcefully evicting health care workers from rented homes, attacking nurses who worked with the infected, forcefully confining doctors, and even suspected patients to their homes are widely reported (Garima, 2020, SC, The Hindu 2020). In some instances, certain communities were 'scapegoated' as causing virus spread (Regan, 2020). Even with strict protocols in place, the stigma and fear of infection, often leads to community resistance to respectful handling of the dead. The trauma it brings to the relatives and the criticism for the authorities are immense (Agarwal, 2020).

The pandemic may disappear after a while, but its traumatic influence is both wide spread and deep set. Its impact cannot be compartmentalized or limited to any one aspect of human life. In order to address its psychosocial impact and promote wellbeing, it is essential to learn from 'best practices' of pandemic management. It is also important to adapt such practices into a Psychosocial Response Protocol (PRP), to serve as essential guideline for future crisis management.

4. The 'Kerala Model'- A case study

'Kerala model' of response to the pandemic received national and international acclaim for successfully managing the virus outbreak. Lessons learned from previous experiences in responding to emergencies such as the floods in 2018 and NIPHA outbreak in 2019 improved State's crisis response competency. High level of political and administrative commitment is noted from the initial phase itself. Government level bodies such as State Health mission, Directorate of Health and family welfare Services, Directorate of Medical Education, State Emergency operation centre (SEOC) and State Disaster Management Authority, followed a participative and collaborative

approach to manage the pandemic (WHO, 2020). Local self-government bodies' active guidance, monitoring and coordination of field level activities increased the efficiency of pandemic management. Extensive 'contact tracing' through active community involvement, strict adherence to epidemiology protocol and psychosocial response initiatives helped arrest the virus spread (Vijayanand, 2020).

A 24-member Rapid Response Team chaired by the Health Minister was established as soon as the pandemic was detected. The team receives on-ground information and updates from 18 state-level committees, that coordinated various aspects with district-level committees. When other States in India were struggling with confirming positive cases, Kerala took initiative to draft Covid-19 containment measures (Shailaja., 2020). Lockdown was initiated way before WHO declaration of Covid-19 as a pandemic. Mask wearing was made mandatory. Quarantine measured were also stricter and longer with 28 days than the national norm of 14 days. Lock down violations were dealt with strictly. Socially valuable outreach policies such as ensuring food kits to all, supplying mid days meals to children at home and ensuring free meals for migrant workers, helped instil in people a feeling of safety, security and accountability (Vijayanand, 2020). Individual hygiene behavior/ health consciousness, timely and transparent risk communication and active capacity building of frontline workers are other conductive factors to effective pandemic management (Joseph; WHO, 2020). Kerala has a strong decentralised mechanism of governance. District level Local Self Government (LSGs) bodies participated actively in pandemic management and containment (Vijayanand, 2020). Extensive campaigns to spread awareness and information about the pandemic worked because of active participation of LSG system and mass media. For instance, the "Break the Chain" campaign which asked people to stay indoors and 'SMS' campaign focusing on Sanitiser, Mask and Social distancing were successful in reaching out to the public (Kurian, 2020). Such measures curbed the spread of the virus and prevented overburdening of the health system.

The setting provided by Kerala's high socio-economic development indicators ensured the right environment for implementing a psychosocial response protocol. Kerala is a top performer in social indicators such as education, healthcare, high life expectancy, low infant mortality and low birth rate. Despite a moderate per capital income, the State has achieved material conditions of living, comparable to those of developed nations (Vernon, 2001). This strategy of investing in human capital seems to have given tangible returns. The number of cases rose eventually. Return of people from elsewhere in India and abroad, as well as community transmission are regarded as cause of this peak in infected cases (Maya, 2020). This trend indicates how ensuring 'individual involvement' is key to the effective management of the pandemic, despite a robust system. Emphasis on 'individual' through institutional measures and actions is a key aspect of Kerala model before and during the pandemic. Some of the specific measures taken are indicative of this individual focus.

4.1. Psychosocial Support Team

To deal with the aspect of mental health, a Psychosocial Support Team was instituted in the State. The team devised strategies to manage stress and other mental health concerns resulting from the outbreak from the very initial days of the pandemic (John et al,2020). 'Ottakalla, Oppamundu' (Not alone, with you) is such a program established by the State. The program includes 1143 mental health professionals. Through this initiative, counselling services are provided to Covid-19 positive cases, people in quarantine, children, special needs population, migrant labourers, older adults living alone, mentally ill patients, and front-line workers involved in

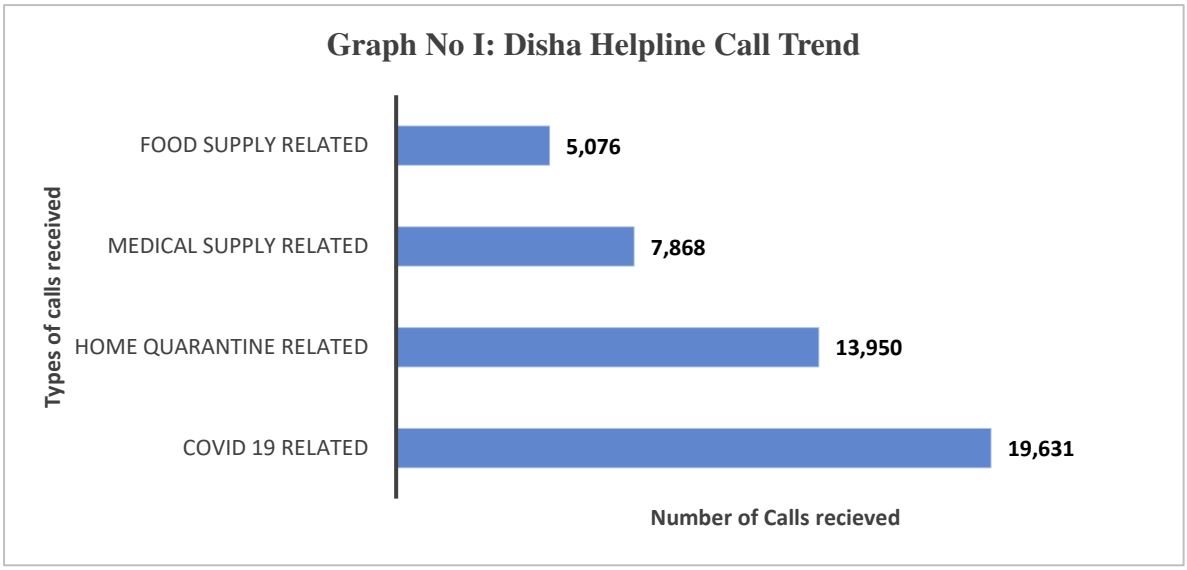
pandemic control activities. The teams have successfully managed a total of 11,42,701 psycho social support and counselling calls till date (Government of Kerala, 2020).

4.2. DISHA

The State took proactive psychosocial interventions by establishing a network of mental health helplines. Direct Intervention System for Health Awareness (DISHA) is one such tele health helpline. DISHA provides 24-hour free tele-counselling services to the community (DISHA, 2020) Originally established in 2013, it is a joint venture of National Health Mission and Department of Health and Family Welfare (Athira, 2020). The tele helpline is designed to provide information on physical as well as mental health issues, guidance/counselling services and 'dial a doctor' facilities. Initially the DISHA helpline network had a sixteen-member team, providing free counselling for students to deal with exam stress (Cris, 2020). Later the helpline services were expanded to include physical and mental issues of adolescents, children, socially isolated individuals, vulnerable category, risks groups and victims of domestic violence or abuse (DISHA, 2020).

DISHA transforms into an emergency information helpline service, with additional manpower, in times of crisis. Currently, a network of seventy-six, psycho-social counsellors provides round the clock information, mental health support, awareness, and other related information about Covid-19 through DISHA (Athira, 2020). 'Contact tracing' and regular 'follow up' of those in, home quarantine is part of this tele-helpline service. The service has dealt with as much as 8,000 calls on peak days of the pandemic outbreak from within and outside the State (Athira, 2020). The DISHA helpline managed to cater to, one and a half lakh distress calls as per press release on July 2020 (Health Department, 2020). Of these total calls' ten percent were from outside the State. Most number of calls were received from Thiruvananthapuram District (11,730) while least number of calls were received from Wayanad District (902) (Malayala Manorama, 2020). When the types of calls received are examined, the greatest number of calls were received for obtaining Covid-19 related support with 19,631 calls. Home quarantine related calls followed a close second position with 13,950 calls, as outlined in graph No I.

Preliminary interviews conducted with the helpline service providers and beneficiaries of such psychosocial services reveal insightful information. The service providers report the nature of their job as challenging yet fulfilling. They have to mediate with different kind of callers and diverse emotions. Some are angry callers, others are anxious, while some call for information. Beneficiaries report feeling reassured, to have a concrete and assessable entity to reach out to, in times of crisis. The probable reason for the success of DISHA is in the helpline's ability to connect the caller with the relevant officials. DISHA successfully networks all the relevant professionals and make their service accessible to the public. These include psychology professionals, ward counsellors, doctors, labour welfare officers, District and State Control rooms, migrant worker welfare rooms, psychiatrists, social workers and other relevant officials. The helpline works as a 'one stop call centre' for finding effective pandemic solutions (Malayala Manorama, 2020). From giving guidelines about the pandemic outbreak to managing those who fear infection, DISHA has been filling in multiple roles quite effectively during times of emergencies (Athira. M, 2020).



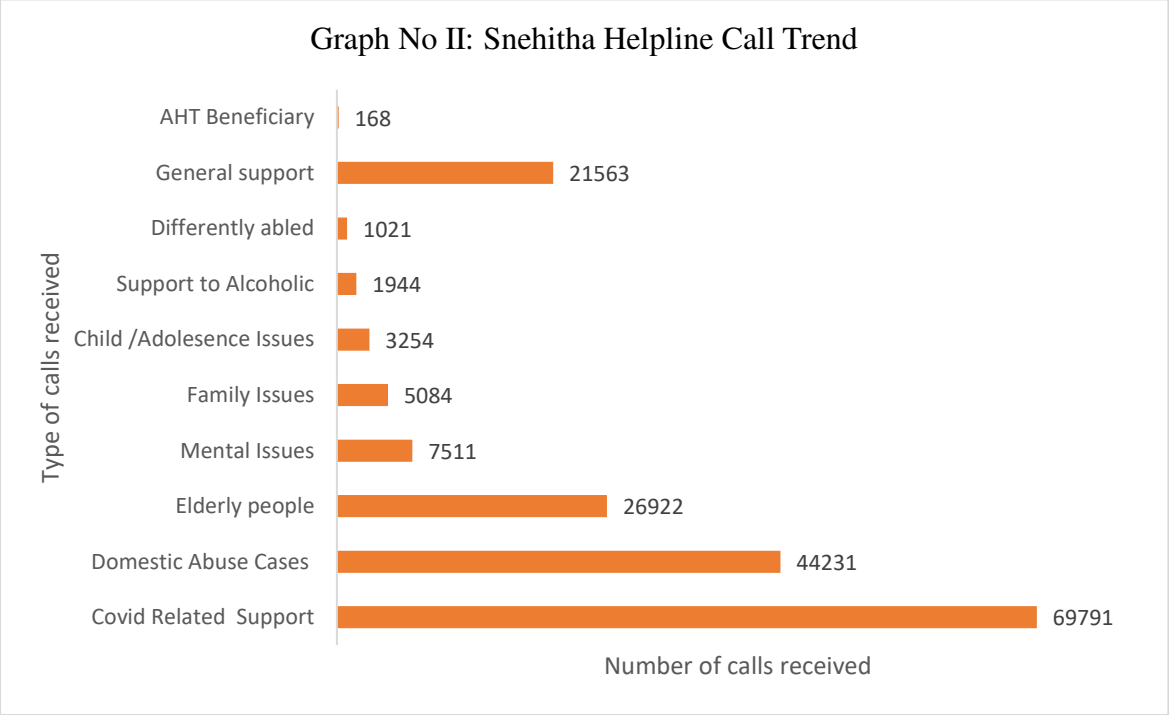
4.3. Kudumbashree

Kudumbashree has been successful contributor to Kerala model of pandemic management. Established in 1997, Kudumbashree is a woman empowerment and poverty eradication program. The program operates through a three-tier system. The Neighbourhood Groups (NHGs) which totals to three lakhs, engages women at community level and forms the basic building block of the initiative. These NHGs are managed by Area Development Societies (ADS) at the middle level and Community Development Societies (CDS) at local government level.The NHGs represent forty-nine lakh families spread across Kerala. This comes close to 50% of total State population. This helps the initiative to reach out to the community quickly and efficiently (Harikishore, 2020).

Kudumbashree has displayed remarkable readiness to face the pandemic. The group have been actively involved in mass production of masks, sanitizers and cloth bags. They have taken proactive steps to spread awareness regarding the pandemic at grass root level. They form the backbone of community kitchens providing food to the needy. Counselling support for elderly, children, women and those in quarantine is provided through Kudumbashree's 'Snehitha' initiative. Originally 'Snehitha' is a gender help desk functioning under Kudumbashree across all 14 districts in the State. It provides mental health support, counselling services and short stay facilities to distressed women and children. It has a network of three hundred and sixty community counsellors. Currently their services have been extended to those facing the pandemic as well as the elderly and the general public (Kudumbashree, 2020). The extent of the service provided are as indicated in Graph No. II. As per the official data Snehitha has provided support to over one lakh eighty thousand people. Most number of calls were received for Covid-19 related support with 69,791 calls, while the domestic abuse related calls follow a close second position with 44,231 calls(Kudumbashree, 2020).

These helplines have made psychosocial support assessable to the wider public. Initial interviews revel satisfaction from all stakeholders. From the beneficiary perspective, having someone to reach out to, leaves a positive impact. They will definitely use such services and recommend the service to someone in need, in the future as well. It is important to maintain their trust and ensure quality services through the helplines. Further explorations are necessary to understand comprehensively, the effect of such services on people and professionals. Currently, even though the network of professionals occupying these jobs are committed, their qualifications and training

procedures, are not found to be uniform. Hence in the future, it is crucial to ensure that qualified mental health professionals occupy these jobs. Timely and standardize training procedure, will also add to their professional competency.



**AHT Beneficiary: Anti human trafficking beneficiary*

4.4. Psychology Departments in Kerala

To deal with the pandemic impacts, various educational and scientific institutions have taken steps to encourage action, exploration and research. The University of Kerala established a Psychology Consultancy Cell (PCC) in December 2019, to provide psychological services to the University staff, students and general public. The "Care Counselling and Testing Centre' functioning under PCC where the author is affiliated with, rendered counselling support during the Covid 19 pandemic. Free counselling has been provided through telephone, WhatsApp and email mode. In-person, counselling services are provided to general public at a nominal rate, while both University stakeholders and people from Below Poverty Line can assess this service for free.

A similar initiative is Community Disability Management and Rehabilitation Program (CDMRP), by Psychology Department, University of Calicut. CDMRP is a joint initiative with Social Justice Department, Government of Kerala. Functioning since 2017 CDMRP provides advanced community-based disability management support to Persons with Disability (PWD), promote community awareness, and provide training and advance research in the area of Disability management. During lockdown, CDMRP took proactive steps to address the needs of PWD as well as general population through initiatives such as tele rehabilitation program, tele counselling, mobile application, information pamphlets and YouTube videos (CDMRP, 2020).

These initiatives play a major role as extension services of the Universities. Such initiatives promote academic community engagement and encourage fruitful social collaborations, increasing socially responsible outcomes from education (NDTV Education, 2018). Interviews reveal that stakeholders are gradually warming up to the on campus psychological services. Given an option, people prefer campus facilities as compared to finding an independent mental health professional. Such services are perceived as more accessible, economical, time efficient and authentic, particularly due to its affiliation to Centres of learning and research.

Kerala University invited proposals that explore various aspects of COVID-19. Several teaching departments have taken up the initiative and come up with proposals to trace impact of the pandemic from psycho-social, educational, economic, political and health perspective. Such research initiatives are crucial for promoting deeper understanding of psychosocial impact of the pandemic. The possibilities of increasing collaborations with the business sectors for promoting research activities must be integrated into this model. Joint scientific research by academic and business sectors can give more fruitful results and serve as alternate source of funding and human resource. The present pandemic scenario can serve as an important impetus for transforming the CSR strategy of India. The possibilities of rechannelling CSR (Corporate Social Responsibility) funds from organizations to provide a major impetus to such research activities need to be explored.

5. Future Directions

Kerala model of pandemic management offers possible elements for replication to contain the spread of Covid-19. There is important lesson here for developing a Psychosocial Response Protocol (PRP). This can help improve society's overall readiness in facing such emergencies, in the future. An integrated psychosocial approach is the need of the hour. For these the following steps offer potential-

5.1. Increasing investment and access to Psychosocial Care

Holistic wellbeing includes psychosocial aspect. But it never receives the attention it deserves. Investing in mental health is crucial. For this, it is important to main stream the concept of seeking psychosocial care. The 'stigma' associated with seeking psychological help must be dispelled through intensive awareness campaigns. Seeking help and support for psychosocial issues must be as normal as seeking medical help (Winch 2013). It is also important to invest in and ensure access to psychological care services (WHO, 2020). Psychosocial aspect should not be separated from the political, or economic realm. There is a global dearth of behavioural health professionals as well as community based psychosocial care facilities. This shortage makes it impossible to provide adequate mental care and support to those in need. The dearth of qualified mental health professionals must not become a roadblock to psychosocial wellbeing (WHO, 2017). It is crucial to increase assess to help from available mental health professionals. The concept of Psychosocial Response Protocol (PRP) for dealing with such emergencies are not widely explored. France introduced it in the 1990's (Bernard-Brunel & Cholin 2010). It is essential to explore the concept further and establish a standardized protocol to maximize community's psychosocial competency in the future. Action-oriented research must become a part of psychosocial professional practice. Such an approach can provide important insight. This will promote a scientific understanding of the effect of pandemic and lockdown on the deeper psyche. Such research studies can serve as the basis of developing a community relevant PRP.

5.2. Psychosocial First Aid (PFA)

Learning to attend to and take care of psychosocial needs should be as normal as attending to a physical injury (Winch, 2013). Educational policy should encourage study of Psychosocial First Aid. Children should be trained at least at a preliminary level, to take care of their mental wellbeing and manage their mental injuries. Best way is to integrate this approach to the curriculum. Even if, professional care is required at a later stage people should not hesitate to given attention to their own and their communities, psychosocial needs. Such early interventions can help improve the overall psychosocial wellbeing of the community (Everly and Lating, 2017). This will eventually help normalize mental health care and remove stigma towards mental illness. Policy level initiatives must also be encouraged to promote community level readiness and mental health preparedness.

5.3. Promoting the Technology mediated model of behavioural health care

Technology assisted applications are providing quality psychological services at affordable rates. With the advent of the pandemic, people are assessing mental health care through such technology mediated platforms (Pendse, Lalani, Choudhury, Sharma and Kumar, 2020). Tele and online counselling such as DISHA, are becoming sought-after service during lockdown. Such technology assisted tele and online counselling services need to be embraced and integrated in the social fabric as long-term solutions. This will increase access to professional mental health care (Joshi, 2020). Parallelly investment must be made to increase the number of qualified psychosocial professionals. A simple knowledge of 'someone to hear you out' can have significant positive impact on wellbeing. The current trend of technology assisted mental health care services will ensure accessibility, reduce stigma and help deal with the shortage of psychology professionals by providing wider reach to such services.

5.4. Psychosocial Response Protocol (PRP)

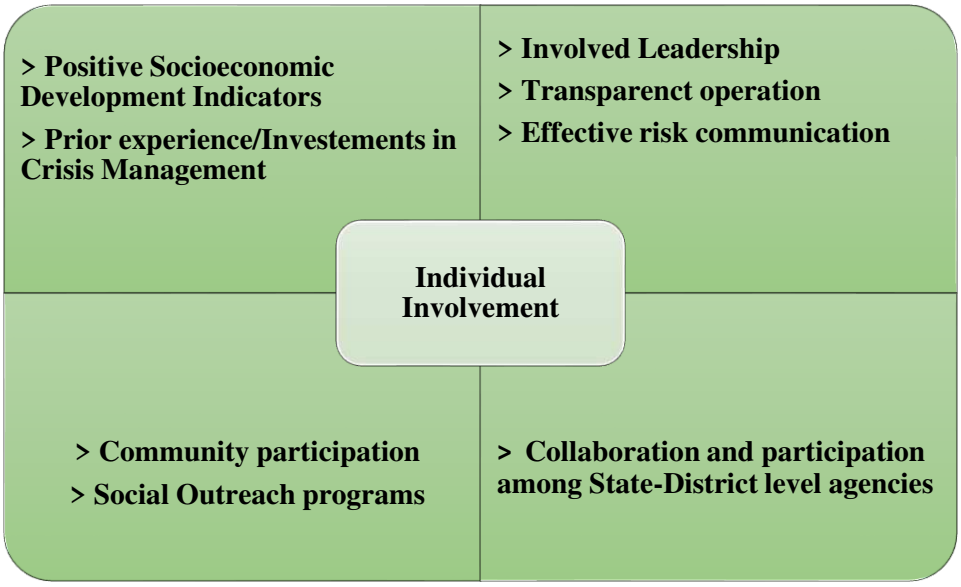


Figure No I : Psychosocial Response Model for Pandemic Management -Kerala Model

Steps must be taken to build and standardize PRP models. Such models can serve as a guideline for Psychosocial Professionals to respond to crisis situations. Psychosocial management before, during and after emergencies and disasters has been identified as one of the key research areas for enhancing well-being (Genereux, Schluter, Takahashi, Usami, Mashino, Kayano, Kim, 2020). PRP can serve as a Psychosocial First Aid measure, charting out primary responses to emergencies. It can help enhance society's readiness and competency in responding to emergencies in the future. As an initial step for developing PRP, best practices during the pandemic must be identified and developed into case studies. Such studies can then be used for wider dissemination and modelling. Kerala model of pandemic management is indicative of how key learning from prior experiences prepared the State to respond effectively.

As indicated by Figure No. I, PRP must ideally integrate individual, community and institutional level initiative to be impactful. PRP must empower each individual to commit and respond to the steps taken by the system to manage emergencies. When exploring Kerala model, individual factors that contributed to PRP's success are high literacy level, health consciousness, commitment to adhere to the steps taken by authority (Joseph, 2020). Community level participation is the next crucial element. Kerala saw community involvement in aspects such as contact tracing, social vigil, volunteering activities, and observance of lockdown rules. State's high socioeconomic indicators and prior investments/experiences in crisis management are background elements that helped, while others were stumbling over 'what to do'. This ensured clarity of action and better collaboration among State and district level agencies. Proactive involvement of State and district level agencies plays as important role for effective implementation and management. Responsive leadership, transparent action and realistic risk communication helped to enhanced model's effectiveness. Valuable social outreach initstives such as Disha helpline, Snehitha helpline, community kitchens, free food kits and campaigns such as 'SMS' and 'Break the chain', helped in impression management of the State as an entity that cared about social welfare (Vijayanand, 2020).

As can be garnered from case exploration, an ideal PRP must address three levels of responses to emergencies- individual level, community level and institutional level. Each individual is key to effective implementation of the model. Measured must be taken to actively address individual welfare and motivate individual responsibility. Community level involvement is another important aspect. Community Health Workers (CHW) such as ASHA's (Accredited Social Health Activists) have increased access to health-related interventions in rural India (Saprii et al, 2015). Community Psychosocial Workers (CPW) can similarly be trained and deployed as part of PRP. They can work to increase awareness, accessibility and reduce taboo towards quality psychosocial care in remote areas. Community assisted psychosocial services have provided effective grassroot level support and improved overall accessibility to mental health care in India (Seikkula, 2013). Such a PRP training must provide the essential framework for address similar emergencies efficiently. Institutional level psychosocial responses could also be standardized and integrated to PRP. The possibilities of involving private sector need to be explored further. This can help to integrate CSR activities into the model and encourage participation from the industrial sector. Overall PRP model must act as a framework for different agents to work together for promoting psychosocial well-being.

6. Conclusion

The pandemic and the associated lockdown have far reaching economic, social, and psychosocial implications. The community is often prepared to address the economic or health consequences explicitly, while the psychosocial under currents are ignored. It is important to take note of the psychosocial impact of such a global pandemic. It is crucial to undertake an in-depth exploration of these implications. The key learning from such explorations can provide important insights. These research insights should be integrated to develop PRP models, that can serve as guidelines for managing future emergencies. This can also help to standardize individual, community and institutional level response to emergencies. The exploration of Kerala model response to the pandemic reveals the psychosocial aspects that helped with effective pandemic management. Such case studies can give important pointers for the development of responsive and relevant PRP models. This can help to mainstream psychosocial wellbeing and become an integral part of the global initiatives for recovering from future emergencies.

Reference

Agarwal, P. (June 12, 2020). *Civic Workers Dragging, Dumping Dead Bodies Of COVID-19 patients Sparks Outrage In Bengal; Governor Seeks Report.* The Logical Indian.Retrieved from https://thelogicalindian.com/news/video-of-decomposed-bodies-of-alleged-covid-19-victims-goes-viral-bengal-21645

Athira, M (March 13, 2020). *Coronavirus: This team at Kerala helpline desk works round the clock in fight against the pandemic*. The Hindu retrieved from https://www.thehindu.com/life-and-style/ article31059935.ece

Activities through Snehitha. (July 20, 2020). Retrieved from http://www.kudumbashree.org/pages/838

Bernard-Brunel, L., & Cholin, N. (2010). *Immediate intervention of medico-psychological emergency units*. Soins. Psychiatrie, (269), 16-19.

Bose, A.K. (July 18,2020). Kerala Govt Begins Efforts to Reduce Suicides Among Children During Lockdown. The Wire . Retrieved from https://thewire.in/society/kerala-student-suicides-lockdown-covid-19

Chowdhury, A & Sundaram, K .J (May 8,2020). *Kerala Covid-19 model for emulation.* IPS Retrieved from http://www.ipsnews.net/2020/04/kerala-covid-19-response-model-emulation/

Direct Intervention System for Health Awareness (August 2020). Retrieved from https://disha1056.com/about/

Economic Review (2017). *Human resources- ageing* retrieved from http://spb.kerala.gov.in/ER2017/web_e/ch414.php?id=41&ch=414

Economic Review. (2017). *Population profile of the State*. http://spb.kerala.gov.in/ER2017/web_e/ch11.php?id=1&ch=11

Everly, G. S. & Lating J, M. (2017). *The Johns Hopkins Guide to Psychological*

First Aid. Balrimore. Jhons Hopkins University Press

Fernandes, M (*April 1 2020). Why children are not immune to Covid-19.* Retrieved from https://www.bbc.com/future/article/20200330-coronavirus-are-children-immune-to-covid-19

Garg, R. K. (April 11, 2020). *Fiscal Stimulus Strategy for Mental Health post Coronavirus Pandemic.* Retrieved from ETHealthWorld https://health.economictimes.indiatimes.com/news/industry/fiscal-stimulus-strategy-for-mental-health-post-coronavirus-pandemic/75091107

Garima (April 24, 2020*) Haryana doctor posted for duty at COVID 19 centre brutally assaulted by Mob of 15 men retrieved* fromhttps://medicaldialogues.in/state-news/haryana/-65157

Généreux. M, Schluter. P .J, Takahashi.S, Usami. S, Mashino. S .Kayano, S and Kim, Y. (April 12, 2019). *Psychosocial Management Before, During, and After Emergencies and Disasters—Results from the Kobe Expert Meeting.* Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6518049/

Harikishore, S. (April 3, 2020)..*Athijeevanam. Program on COVID 19.* Doordarshan. Retrieved from https://www.youtube.com/watch?time_continue=4773&v=N1W8CkrExho&feature=emb_logo

Health and Social Justice Department. (May 4,2020). *Press Release* retrieved From https://prd.kerala.gov.in/pressrelease

Health and Family welfare department. GOK. (June, 23,2020). Bulletin. Retrieved from https://dhs.kerala.gov.in/wp-content/uploads/2020/06/Bulletin-HFWD-English-June-23.pdf

JagaranJosh.(April 2, 2020). *CDMRP introduces Tele-Rehabilitation programmes for children with special needs during COVID-19 lockdown.* Retrieved from https://www.jagranjosh.com/news/cdmrp-1-lockdown-153462

Jayakumar, P. B. (April 1,2020*). Alcohol non-availability kills more than coronavirus in Kerala; foreign liquor served as 'medicine'* Retrieved from https://www.businesstoday.in/current/economy- story/399716.html

John, E.C., Gunasekaran, I., & Maria, N, R. (March 23,2020). *COVID-19: Taking Heed From Kerala's Mental Health Interventions* Science: The Wire retrieved from https://science.thewire.in/health/covid-19-kerala-mental-health/

Joshi, S.S. (2020). *Tele-psychotherapy: The Bridge to Continuity in Care and Mental Health Services in COVID-19 and post COVID Era.* In L.S.S. Manickam (Ed)

Jung, J.S & Yonsei, Y,J .(2020) *Mental Health and Psychological Intervention Amid COVID-19 Outbreak: Perspectives from South Korea*. Psychological Medicine as part of the Cambridge Coronavirus Collection. Retrieved from https://doi.org/10.3349/ymj.2020.61.4.271

Kapoor D (May 8,2020). *How Corporates' response to COVID-19 can evolve Social Engagement for businesses.* Retrieved from https://indiacsr.in/how-corporates-response-to-covid-19-can-evolve-social-engagement-for-businesses/

Kataki, R .(April 17, 2020). *Why women are more stressed than men during the lockdown* Retrieved from https://timesofindia.indiatimes.com/life-style/relationships/love-sex/why-women-are-more-stressed-than-men-during-the-lockdown/articleshow/75185397.cms

Kluge,P.H.H. (April 2, 2020). *Statement- Older people are at highest risk from COVID-19, but all must act to prevent community spread* .WHO. retrieved from http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/statements/statement-older-people-are-at-highest-risk-from-covid-19,-but-all-must-act-to-prevent-community-spread

Kurian, C.K (April 21, 2020). *How the Indian state of Kerala flattened the coronavirus curve* . The Guardian retrieved from https://www.theguardian.com/commentisfree/2020/apr/21/kerala-indian-state-flattened-coronavirus-curve

MalayalaManorama.(May 4,2020). *More Than one Lakh Calls to Disha Helpline Number till now.* Retrieved from https://www.manoramaonline.com/news/latest-news/2020/05/04/-now.html

Manoramaonline. (May 9,2020). COVID-19: *Kerala's fight against coronavirus | Stats.* Retrieved from https://english.manoramaonline.com/news/kerala/2020/04/09/coronavirus-covid19-kerala-situation-live-stats-infographics.html

Maya, C. (October 1, 2020). Coronavirus | Kerala's COVID caseload doubled in September 2020. Retrieved from https://www.thehindu.com/news/national/kerala/states-covid-caseload-doubled-in-sept/article32738350.ece

Mudgill A (May 14, 2020) .*P M Modi's Stimulus equals Pak GDP*. ET Markets recovered from https://economictimes.indiatimes.com/markets/stocks/news/modi-stimulus-equals-pak-gdp-5-times-ambani-wealth-20-of-total-bse-m-cap/articleshow/75708530.cms

Naha, L.A. (June 11,2020). *Kerala Class x girl ends life allegedly over lack of access to online classes*. The Hindu retrieved from https://www.thehindu.com/news/national/kerala/article31728470.ece

NDTV Education Team (September 11, 2018). *CDMRP: A Community Based Disability Management Model By Calicut University, Kerala Government*. Retrieved from https://www.ndtv.com/education/cdmrp-a-calicut-university-kerala-gover-1915039

Pendse, S. R, Lalani, F.M, De Choudhury, M, Sharma. A & Kumar, N.(2020) *"Like Shock Absorbers": Understanding the Human Infrastructures of Technology-Mediated Mental Health Support. Retrieved from https://www.microsoft.com/en-us/research/uploads/prod/2020/02/pendse_et_al_mental_health_helpline_work.pdf*

Regan, H. Sur, P & Sud, V (April 24, 2020) *India's Muslims feel targeted by rumors they're spreading Covid-19* retrieved from https://edition.cnn.com/2020/04/23/asia/india-coronavirus-muslim-targeted-intl-hnk/index.html

Sebastian, M,(April 27,2020). *Coronavirus: How Kerala Govt Is Preparing For The Return Of NRIs After Lockdown*. Huffpost retrieved from https://www.huffingtonpost.in/entry/kerala-norka-preparation-for-nri-return_in_5ea687e5c5b6dd3f908723d5

Seikkula, J., & Arnkil, T. E. (2013). *Open dialogues and anticipations-Respecting otherness in the present moment*. Teema: Thl.

Saprii,L. Richards, E. Kokho, P & Theobald, S. *Community health workers in rural India: analysing the opportunities and challenges Accredited Social Health Activists (ASHAs) face in realising their multiple roles.* Human Resource of Health. Retrieved from https://human-resources-health.biomedcentral.com/articles/10.1186/s12960-015-0094-3

Sellgren K, (May 10th 2020).*Coronavirus: Youth mental health 'needs recovery plan'* retrieved from https://www.bbc.com/news/education-52721132https://www.bbc.com/news/education-52721132

Shailaja, K.K (March 23,2020). *How to handle a pandemic.* The Hindu retrieved from https://www.thehindu.com/opinion/op-ed/ article31136612.ece

Shiju Joseph. (July,2020). Covid prathirotham: Kerala Modelum Samuhika Prathisanthikalum.Sashtra Gathi

Special Correspondent (April 20, 2020).*IMA seeks law to check violence against doctors* .The Hindu retrieved from https://www.thehindu.com/sci-tech/health/doctors/article31391231.eceSuri, R .(2020). Domestic violence, child abuse cases on the rise in this lockdown: Experts explain why. Hindustan Times. Retrieved from https://www.hindustantimes.com/sex-and-relationships/domestic-violence-child-abuse-

Owings, L &, Hirschfeld, D. (May 5, 2020). *Mental illness pandemic to follow COVID-19, experts warn*. Sci Dev Net. Retrieved from https://www.scidev.net/global/coronavirus/news/mental-illness-pandemic-to-follow-covid-19-experts-warn.html?__

The Economic Times.(February 10, 2018) *Only 898 psychologists against requirement of 20,250*: Government retrieved from https://economictimes.indiatimes.com/industry/healthcare/biotech/healthcare/only-898-psychologists-against-requirement-of

The Hindu Editorial. (May 6, 2020). *The mark of zero: On containment of COVID-19 cases in Kerala.* Retrieved from https://www.thehindu.com/opinion/editorial/the-mark-of-zero-on-containment-of-covid-19-cases-in-kerala/article31512638.ece

The Indian Express. (November 5, 2017). *Kerala Mental Health Report: 11.36 percent people in the state of unsound mind*. Retrieved from https://www.newindianexpress.com/states/kerala/2017/nov/05/kerala-mental-health-report-1136-percent-people-in-the-state-of-unsound-mind-1692356.html

The News Minute.(April 11,2020). *Kerala's Disha helpline gets hundreds of*

calls from Malayalis living abroad. Retrieved from https://www.thenewsminute.com/article/122379

Underhill, C (July 10 2018). Mental Illness Is a Global Crisis, Not Just a Disease of Rich Nations retrieved from https://www.huffpost.com/entry/mental-illness-is-a-globa_1_b_6052014

University of Calicut. (June 17, 2018) *CDMRP*. Retrieved from https://www.uoc.ac.in/index.php/2018-07-09-06-23-55

Veron, R (2001), *The new Kerala model: lessons for sustainable development.* World development vol.29,No.2 , pp.601-617

Vijayanand, S. M (May 2, 2020). *Kerala's management of Covid-19: Key learnings.* Retrieved from https://www.ideasforindia.in/topics/governance/kerala-s-management-of-covid-19-key-learnings.html

Winch, G. (2013). *Emotional First Aid: Healing Rejection, Guilt, Failure*. Hudson Street Press. New York

World Federation for mental health. (April 22,2020). *Appeal for National Plans for Mental Health during the Coronavirus Global Emergency* retrieved from https://wfmh.global/mental-health-and-covid-19-appeal/

World Health Organization. (March 18,2020). *Mental health and psychosocial considerations during the COVID-19 outbreak*. Retrieved from https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf?sfvrsn=6d3578af_10

World Health Organization. (May 20,2020). *WHO's Mental Health Atlas 2017 highlights global shortage of health workers trained in mental health*. Retrieved from https://www.who.int/hrh/news/2018/WHO-MentalHealthAtlas2017-highlights-HW-shortage/en/

World Health Organization. (July 2,2020). Responding to COVID-19 - Learnings from Kerala. Retrieved from https://www.who.int/india/news/feature-stories/detail/responding-to-covid-19---learnings-from-kerala

Figures

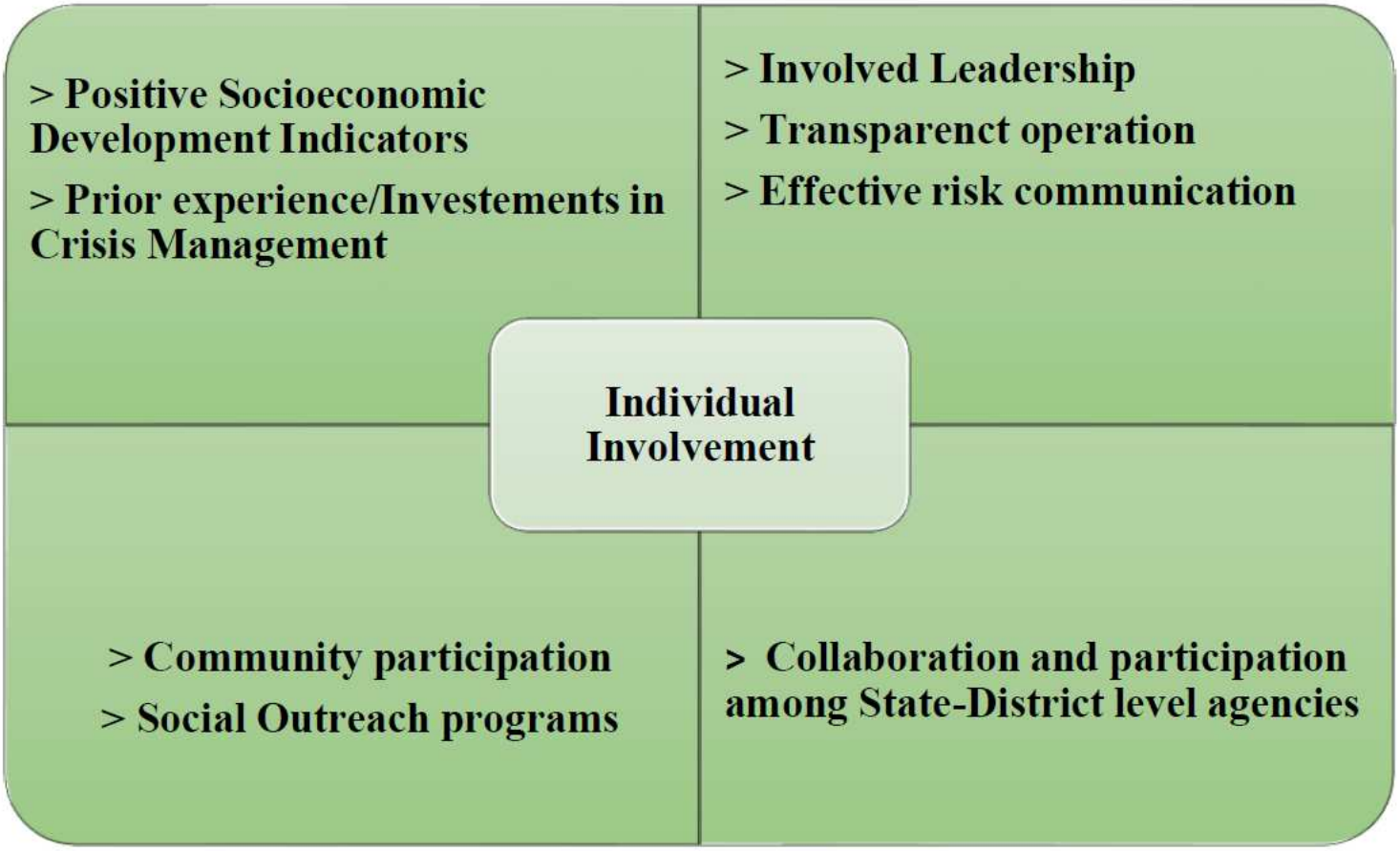


Figure 1

Psychosocial Response Model for Pandemic Management -Kerala Model