The Role of Community in Managing Crisis of COVID-19 Pandemic: The Case of Jimma Zone, Southwest Ethiopia

Alemayehu Gebru^{1*}, Wario Wako², Hunde Doja³, Addisalem Taye⁴

1,2&3 Faculty of Social Work, Jimma University, Ethiopia

⁴Faculty of Psychology, Jimma University, Ethiopia

*Corresponding author's email: gebrualemayehu@gmail.com

ABSTRACT

This study aimed to explore the roles of the community in managing the covid-19 crisis in the Jimma Zone, Southwest Ethiopia. To achieve this, we employed a qualitative phenomenological research design. This, in turn, helped us conduct in-depth and key informant interviews and FGDs. The study participants were community members of the towns, health workers/COVID-19 task forces, religious leaders, experts from government sectors and Non-government Organizations (NGOs), resourceful community members and workers of Jimma Emergency Operation Center, and staff of the Jimma University Institute of Health. By determining their size using the data saturation point method, we selected 17 participants. Two FGDs were conducted with six participants in each group, data were then analyzed thematically. We used data sources and method triangulations to enhance the credibility of the findings. The findings of this study revealed the covid-19 crisis has brought psychosocial, economic, and spiritual problems to the community. In particular, individuals with low incomes, sectors with serious human interactions, urban dwellers, and vulnerable groups suffered significantly during the pandemic. The community applied both formal and informal techniques to respond to the pandemic. Misconceptions, poor implementation of protocols, and resource scarcity were the major challenges that the community faced in its efforts to combat the crisis. However, the community used two strategies to address the aforementioned challenges. They implemented the precautionary measures recommended by the WHO and applied the traditional social support system. Therefore, collaborative efforts are needed from the community as well as different stakeholders in campaigning to raise awareness of the importance of precautionary measures for COVID-19 prevention and control activities.

Keywords: COVID-19; Crisis; Managing; Community; Jimma; Ethiopia

Background

The COVID-19 pandemic has posed significant challenges to individuals and leaders worldwide, with successful mobilization of communities proving crucial in mitigating its effects. Examples include the

UAE's synchronized efforts across sectors and the prompt response of Rey Juan Carlos University Hospital in Madrid, Spain, to adapt to the crisis (Zaher *et al.*, 2021; Barba *et al.*, 2020). Controlling the spread of viruses like COVID-19 relies on preventive measures such as hand hygiene, physical distancing, and quarantine, highlighting the importance of proactive testing and isolation strategies (Guner, Hasanoglu & Aktas, 2020). The swift global spread of COVID-19 necessitates proactive community responses, especially in raising awareness among vulnerable populations. Drawing on past community engagement experiences enhances the effectiveness of present COVID-19 prevention efforts, as recommended by literature (Gilmore *et al.*, 2020).

Predicting a crisis as severe as COVID-19 is challenging, yet the potential for future deadly epidemics looms. COVID-19 disrupts traditional human resource management methods, posing significant challenges for managers and practitioners. However, it prompts organizations to adapt and focus on managing human resources effectively. Despite its challenges, COVID-19 presents opportunities for organizations to empower their workforce, enhance digital capabilities, and broaden competencies, while also fostering closer connections between workers and managers through virtual socialization methods such as meetings and lunches. Although this study examines human resource management during the pandemic, it overlooks community crisis management capabilities. (Hamouche, 2021).

The study evaluates the validity of the 22-item Impact of Event Scale-Revised (IES-R) for assessing PTSD during the COVID-19 pandemic across multiple countries. Analysis of data from 1020 participants supports the scale's utility and construct validity, although the 16-item version is deemed preferable (Aljaberi, et al., 2022). A study investigates the link between problematic social media use, subjective well-being, and insomnia among 288 Algerian university students. It reveals an indirect association between problematic social media use and overall subjective well-being, as well as indirect effects on insomnia and subjective well-being subdomains, supported by structural equation modeling (El Abiddine, et al., 2022). The study examines e-learning satisfaction factors among 258 Malaysian university students during COVID-19. It finds significant associations with instructor performance, course evaluation, student factors, and system quality, highlighting the importance of enhancing these aspects for satisfaction. (Mohammed et al., 2022). A Psychological Distress Scale (CPDS) for Arab countries during COVID-19 was developed and tested across Algeria, Kuwait, Saudi Arabia, and Yemen, showing measurement invariance across gender and country, aiding in identifying pandemic-induced distress. (Fares, et al., 2021).

In Jordan, a study surveyed 2424 respondents to gauge beliefs about smoking and COVID-19, its impact on smoking behavior, and intentions to quit. Most participants believed smoking relates to COVID-19 risk. About a quarter increased smoking during the pandemic, while over a quarter planned to quit, citing self and family protection as key reasons. (Al-Tammemi, *et al.*, 2021). Wario and Alemayehu (2020) highlighted the mixed effects of the COVID-19 pandemic on children's socialization, including increased intimacy and hygiene but also obesity, depression, and excessive screen time. The female university students faced hopelessness, suicidal ideation, and financial struggles during the COVID-19 lockdown. They used coping strategies like alternative teaching methods, temporary jobs, prayer, and social media. Alemayehu's (2020) study found that while students coped with challenges in spiritual, social, cultural, emotional, and behavioral aspects, they also experienced fear, stress, isolation, loneliness, and poor social interaction. Both studies highlight the need for universities to continue teaching-learning activities despite lockdown restrictions. Overall, following are the research objectives:

- To find out the actual crisis happened in the community due to COVID-19.
- To identify the crisis management response strategies of the community during COVID-19 shocks.
- To identify the challenges that the community faced while responding to the COVID-19 crisis.
- To explore the opportunities encountered by the community while responding to the COVID-19 crisis.

Theoretical framework

Pearson and Mitroff's five-stage framework is a comprehensive approach to crisis management, encompassing signal detection, preparation/prevention, containment/damage limitation, recovery, and learning (Crandall, Parnell & Spillan, 2013). This framework guides our work from inception to end, focusing on signal detection, forming crisis management teams, minimizing damage, restoring operations, and learning from the crisis.

Methods

Descriptions of the Study Area

Jimma Zone, situated within Ethiopia's Oromia region, comprises 20 districts, with Jimma, Agaro, Shebe, and Asendabo towns purposefully chosen due to their high population density and strategic location along the main road to Addis Ababa, potentially increasing COVID-19 prevalence.

Research Paradigm and Design

The study adopts a constructivist paradigm to understand subjective human experiences, utilizing a qualitative, phenomenological research design. It aims to explore how individuals interpret their real-life experiences during the COVID-19 crisis, focusing on their resilience strategies and opportunities amidst the challenges they face. (Bloor & Wood 2006, Kawulich 2012, Rehman & Alharthi 2016, Kivunja & Kuyini 2017).

Sampling Techniques and Size

A non-probability sampling technique, specifically purposive and convenience sampling, was employed to identify the research participants. The number of participants was determined based on the data saturation point. The data saturation point is where the redundancy of information appears, and the researchers are no longer able to find new information from the upcoming participants. Accordingly, we purposively selected 17 relevant participants, and their size was determined by the data saturation point. We conducted two FGDs, each with six participants. A total of 29 participants participated in this study.

Data Collection Techniques

Phenomenology, used in community settings, examines individual experiences through interviews, observations, and focus groups. A study on COVID-19 crisis management employed diverse participants and semi-structured interviews in local languages (Larkin, Flowers & Smith, 2021).

Data Analysis and Quality Assurance

Thematic analysis involved transcribing audio-recorded interviews and field notes, then coding them into major and sub-themes. This method followed six steps: transcription, familiarization, coding, categorization, pattern identification, and theme generation. To ensure data reliability, triangulation, peer debriefing, and member checking were conducted.

Ethical Consideration

Data collection ensured participant privacy through informed consent, purpose explanation, confidentiality measures, and ethical clearance from Jimma University's Institutional Review Board. (Somekh & Lewin, 2005).

Results

Table 1: Study Participants

Code	Age	Gender	Religion	Education status	Marital status	Responsibilities
IDI-1	36	Male		12 th	Married	Community leader 7 years
IDI-2	40	Male		12 th	Married	Agaro Town Kebele 04
						administrator 13years
IDI-3	42	Male		1 st degree in public	Married	Head of Agaro Town health
				health		office with 13years
IDI-4	28	Male	Muslim	8 th	Married	Community member
IDI-5	48	Male	Muslim	10 th	Married	Community member
IDI-6	29	Male	Orthodox	11 th	Married	Community member
IDI-7	26	Female	Muslim	1st degree	Single	Community health worker
IDI-8	32	Male	Protestea	12 th	Married	Community leader
			nt			
IDI-9	45	Male	Muslim	9 th	Married	Community elderly
IDI-10	52	Male	Muslim	Diploma	Married	Religious leader
IDI-11	45	Female	Orthodox	12 th	Married	Community member
KI-1	27	Female	Catholic	1st degree	Single	Jimma city health worker
KI-2	29	Female	Muslim	1st degree	single	Community health center
						nurse
KI-3	33	Female	Orthodox	Masters degree	Married	Jimma city health officer
KI-4	37	Male	Protestan	1st degree	Married	Jimma city community health
			t			worker
KI-5	42	Male	Muslim	Diploma	Married	Community member
KI-6	44	Male	Muslim	Diploma	Married	Community member
				FGD-1		
P: I	45	Male	Muslim	Masters degree	Married	Town administrative
P: II	31	Male	Muslim	1 st degree	Married	Kebele Manager
P: III	48	Male	Muslim	12th & religious	Married	Religious Elder
P: IV	36	Male	Orthodox	1 st degree	Married	Health Center Manager
P: V	52	Male	Muslim	12 th	Married	Community Leader
P: VI	30	Male	Muslim	10^{th}	Married	Community elderly
	•	•	•	FGD-2		
P: I	35	Female	Muslim	8 th	Married	Community member
P: II	30	Female	Orthodox	6 th	Single	Community member
P: III	29	Female	Muslim	4 th	Marriem	Community member
P: IV	28	Female	Muslim	8 th	Married	Community member
P: V	31	Female	Protesta	8 th	Single	Community member
			nt			
P: VI	26	Female	Protesta	8 th	Married	Community member
–			nt			

Source: from the fieldwork of the researchers.

During the analysis, the researchers categorized the coded concepts based on their similarities and gave them relevant themes which can hold the whole scenario in one glance. Thus, the following table depicts those emerged major themes and subthemes of the qualitative data collected from the field.

Table 2: Findings of the Study

	Major Themes	Subthemes			
1.	Unexpected and new experience	All people were shocked and uncertain			
2.	Psychosocial and spiritual Problems	 Troubled the social fabric and individualistic lifestyle Restricted movement Restlessness/hopelessness Financial crisis Changed religious doctrine 			
3.	Most Affected Segments of the Community	 People with Low Socioeconomic Status Sectors with Serious Human Interaction Urban Dwellers Vulnerable Groups of the Community 			
4.	Actions as taken by the Community	 Formal measures ✓ Ensuing Protective Protocols ✓ Mobilizing Resources and Collaboration ✓ Task Forces Informal Measures ✓ Praying ✓ Traditional Support System ✓ Eating spicy foodstuff 			
5.	Challenges during managing COVID-19 crisis	 Misconceptions about the Pandemic Protocols were not Uniformly Implemented Protraction of the Pandemic Resource Scarcity 			
6.	Opportunities and lessons learned from COVID-19 crisis	 Humbleness and fear of the supernatural Learned to Give and Cooperation Having Time for oneself and Family Planning for Uncertain Future Managing Resources and Innovations Properly Positive Change of Personal Hygiene and Physical Exercise Developed Saving Culture Developed Culture of Reading and Writing 			

Source: from the fieldwork of the researchers.

COVID-19 Crisis to the Community

Unexpected and New Experiences

The revelation showed that the abrupt appearance of the coronavirus caused widespread shock, with people confined at home due to halted public services. Essential goods became scarce, leading to restlessness and uncertainty in the community. Religious figures and locals voiced fear, likening the situation to an impending catastrophe. Lockdown measures worsened hunger and psychological strain, disrupted religious activities and amplified uncertainty. Participants expressed confusion and anxiety about the future, highlighting the pandemic's universal impact on various societies and individuals.

Troubled the Social Fabric and Individualistic Lifestyle

The study found that the COVID-19 pandemic severely disrupted community social interactions. Participants noted a cultural shock as traditional customs like hugging and gathering were abandoned due to government restrictions on social gatherings during religious events, weddings, and funerals. The lockdown also prohibited positive social practices like sharing meals and hosting coffee ceremonies, prompting a shift from collectivism to individualism. Participants expressed frustration over abandoning longstanding customs and their inability to visit or bury community members.

Restricted Movement

The study found that COVID-19 protective measures severely limited people's movement and incomegenerating opportunities, particularly affecting those reliant on daily earnings. (Male, 32 years old).

Restlessness/Hopelessness

The research revealed that the community grappled with anxiety and despair amid the COVID-19 pandemic and lockdown, as expressed by participants (*Male*, 29,36 years old).

Financial Crisis

The study findings revealed that the COVID-19 pandemic and subsequent lockdown led to a financial crisis in the study areas, with communities heavily reliant on donations for survival due to closed businesses and mobility restrictions. Economic challenges included food shortages, exploitation by merchants, decreased productivity, and persistent stress among community members.

Changed Religious Doctrine

The study findings indicated that the COVID-19 pandemic disrupted religious practices in the community, such as collective worship, with activities like Taraweeh and Jummah prayers suspended, causing a shift in community norms (*Male, 36 years old*). Similarly, a participant from an NGO in Jimma town noted decreased attendance at churches and mosques due to government directives and the contagious nature of the disease (*Female, 26 years old*).

Most Affected Segments of the Community

- People with Low Socioeconomic Status
- Sectors with Serious Human Interaction
- Urban Dwellers
- Vulnerable Groups of the Community

Actions as Taken by the Community

Formal Measures

The findings identified that the community members were following the directions of the Ministry of Health and practicing protective protocols.

• Ensuing Protective Protocols

Participants from Jimma and Shebea towns described community members adhering to COVID-19 protocols, including staying at home, avoiding contact, and utilizing protective measures like masks and sanitizers.

• Mobilizing Resources and Collaboration

Community members in Jimma town, including various groups like Idirs, youths, and Mahibers, along with police, religious leaders, and local administrators, collaborated to support vulnerable individuals with resources like food, hygiene items, and financial aid for six months. Essential roles were played by community and religious leaders, police, and local administrators in raising awareness and providing support to those in need. Volunteers screened and provided assistance to vulnerable groups, while NGOs, CBOs, and GOs also contributed resources to address the needs of disadvantaged community members, employing various strategies like self-reporting and consulting local leaders.

• Task Forces

The study found that town administrators established task forces to manage the COVID-19 crisis. Active involvement in planning and resource mobilization aimed to protect the community and provide support

to vulnerable groups. Additionally, government task forces at the Wereda level focused on resource mobilization, awareness campaigns, protocol implementation monitoring, vaccination programmes, information dissemination, and addressing stigma and discrimination.

Informal Measures

• Traditional Support System

The research emphasized traditional community support mechanisms during the COVID-19 crisis, where donations and volunteers aided in providing essential supplies. 'Jamaa wal-gargaarsaa', a volunteer association, coordinated assistance efforts alongside government, religious, and NGO collaboration.

• Eating Spicy Foodstuff

Research findings indicated a notable rise in the community's consumption of local foods, driven by the belief in their ability to prevent COVID-19 infections, as confirmed by a participant from Jimma town (Male, 29 years old).

• Praying

The study reveals that community members have utilized prayer as a strategy for managing the COVID-19 pandemic, exemplified by a participant from Asendabo town emphasizing reliance on Allah for protection (Male, 48 years old).

Challenges During Managing COVID-19 Crisis

Misconceptions About the Pandemic

The community held misconceptions about COVID-19, believing only vulnerable groups were affected, while some saw it as a punishment from God rather than a disease. Fake news fueled uncertainty, with religious leaders disagreeing on pandemic management. Despite initial precautions, adherence to safety measures declined, with mask-wearing stigmatized. Rumours hindered education efforts, and returning to pre-pandemic norms further jeopardized public health.

Protocols Were Not Uniformly Implemented

FGD-II participants expressed readiness to respond to the crisis, but faced challenges due to extreme negligence or excessive caution. COVID-19's politicization was evident, with disparities in protocol enforcement, fostering further politicization and community discord.

Protraction of the Pandemic

The findings asserted that community members began to hesitate to support each other when the crisis was prolonged. One of the participants stated, 'When the crisis is protracted, even the well to do households hesitates to support needy individuals because they were thinking about their own survival' (Male, 28 years old).

Resource Scarcity

Participants highlighted the scarcity of resources, including food, masks, and sanitizing equipment, hindering COVID-19 prevention efforts and making adherence to protocols challenging.

Opportunities and Lessons Learned from COVID-19 Crisis

Humbleness & Fear of the Supernatural

During crises, people in Jimma town displayed humility, fearing God and embracing morality. Participants viewed this as a valuable opportunity for personal growth and spiritual connection.

Religious leaders also noted an enhanced harmony with the divine during the COVID-19 crisis. (Male, 36; Female, 45).

Learned to Give and Cooperation

The COVID-19 crisis provided an opportunity for the community to learn the value of sharing and supporting others, according to participants from Jimma town. They emphasized the importance of gathering credible data collaboratively to develop evidence-based strategies to combat the pandemic.

Having Time for Oneself & Family

The COVID-19 pandemic provided individuals and families with valuable time for self-reflection and bonding, fostering intimacy among family members. Participants noted that the crisis allowed them to address challenging relationships and strengthen familial connections that were previously neglected due to busy schedules.

Planning for Uncertain Future

The study found that community members recognized the importance of proactive planning and readiness for future challenges. Participants emphasized the need for national-level emergency preparedness strategies and the importance of forecasting and building resilience to cope with crises.

Managing Resources and Innovations Properly

The study highlighted the community's adaptability in job creation and learning to operate with fewer employees. Participants noted leveraging the crisis as an opportunity for innovation and developing domestic skills.

Positive Change of Personal Hygiene and Physical Exercise

The findings highlighted the positive impacts of the COVID-19 crisis on personal hygiene practices and physical exercise within communities. Participants noted a reduction in communicable diseases like the common cold due to improved hygiene habits and sanitation awareness, leading to behavioral changes in maintaining personal hygiene and environmental cleanliness (Male, 29, 42, 36 years old).

Developed Culture of Reading & Writing

The findings showed that community members were able to develop their culture of reading and writing during the covid-19 crisis and the lockdown. The participant from Asendabo town asserted that the outbreak of the pandemic contributed enormously to the community members developing their reading and writing skills (*Male, 36 years old*).

Developed Saving Culture

The findings showed that the community has been saved from extravagance due to the covid-19 crisis in some respects. For example, the participant from Jimma town affirmed, "I witnessed that one of my friends in our church has been married and celebrated his wedding ceremony with a minimum cost with only six participants" (Male, 30 years old). In addition, the participant from Asendabo town explained that the covid-19 crisis has contributed to the reduction of extravagance because it made many people change their minds and save money by cancelling their marriage ceremonies (Male, 36 years old).

Discussions

Community members have adapted resource management during the pandemic, keeping agencies operational with limited staff and using scarves as face coverings. Swift responses in Madrid's Rey Juan Carlos College Healing Center adjusted facilities and staffing for COVID-19 patients. Studies in Spain and Ethiopia reveal both positive adaptations and negative psychosocial impacts (Barba, *et al.*, 2020).

Community crisis management strategies during the pandemic involve formal protocols like hygiene and distancing, as well as informal methods like traditional support systems and dietary changes. Increased testing is crucial for identifying cases, while individuals cope through lifestyle adjustments and supporting others. However, psychosocial challenges include fear and isolation, particularly impacting vulnerable groups and those with low socioeconomic status (Guner, Hasanoglu & Aktas, 2020; Gilmore *et al.* 2020). The COVID-19 crisis has presented communities and organizations with opportunities for growth, such as fostering spirituality, cooperation, and self-care, as well as reevaluating resource management and embracing digitalization. Additionally, it has promoted family bonding, hygiene practices, and skill development, while shifting socialization to virtual platforms (Hamouche, 2021).

Various studies have examined the psychological impacts of the COVID-19 pandemic, utilizing tools like the Impact of Event Scale-Revised and the COVID-19 Psychological Suffering Scale. Additionally, research has explored factors affecting well-being, online learning satisfaction, and smoking behaviors during the pandemic. Crisis management models, such as Pearson and Mitroff's framework, help understand community responses across different stages, highlighting the importance of indigenous knowledge and collective efforts in pandemic mitigation. While this study emphasizes collective responsibility and the need for future research to address numerical limitations, it underscores the value of community-based support in navigating unforeseen crises (Aljaberi, et al., 2022; Aljaberi, et al., 2022; Aljaberi, et al., 2023; El Abiddine, et al., 2022; Mohammed et al., 2022; Fares, et al., 2021; Al-Tammemi, et al., 2021).

Conclusion & Recommendations

The COVID-19 crisis profoundly impacted the Jimma Zone community, disrupting its social fabric and causing social, psychological, spiritual, and economic challenges. Despite shock and uncertainty, the community employed two main strategies: adhering to WHO guidelines and relying on traditional social support. Amid challenges, the crisis also presented opportunities for learning and resilience-building, as the community adapted, collaborated, and prepared for an uncertain future. Effective implementation of COVID-19 protective protocols was hindered by community misconceptions, highlighting the crucial need for robust awareness campaigns led by health workers, local administrators, community leaders, religious figures, and law enforcement. The remarkable collaborative efforts of the community in addressing economic challenges among vulnerable members should be sustained as a promising social support system. Given the global nature of the pandemic, coordinated responses at global, national, and local levels are imperative.

Based on the findings of the study, we forwared the following way outs.

- The community health workers at local and national levels should recored and document lessons from the current experiences for future references.
- The community health workers should amass supportive mechanisms from the community whenever health problems araise.
- The community should sustain its comprehensive responses that includes the biological, psychological, social and spiritual aspects with the notion of the total person-in-the total environment.
- The local government should be committed enough in implementing the policies and protocols from ministry of health in particular and world health organization in general.
- The researchers should conduct further studies to better comprehend the resilience of the community towards pandemics and share good experiences among the world.

Declarations

Ethics Approval and Consent to Participate: Ethical considerations during quantitative data collection include obtaining informed consent, ensuring confidentiality, and protecting participants' privacy.

Conflict of Interest: Not applicable.

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References

Abbas Zaher, W., Ahamed, F., Ganesan, S., Warren, K., & Koshy, A. (2021). COVID-19 crisis management: lessons from the United Arab Emirates leaders. Frontiers in public health, 9, 724494. https://doi.org/10.3389/fpubh.2021.724494

Aljaberi, M. A., Alareqe, N. A., Alsalahi, A., Qasem, M. A., Noman, S., Uzir, M. U. H., ... & Mohd Rani, M. D. (2022). A cross-sectional study on the impact of the COVID-19 pandemic on psychological outcomes: Multiple indicators and multiple causes modeling. PLoS One, 17(11), e0277368. https://doi.org/10.1371/journal.pone.0277368

Aljaberi, M. A., Al-Sharafi, M. A., Uzir, M. U. H., Sabah, A., Ali, A. M., Lee, K. H., ... & Lin, C. Y. (2023, August). Psychological toll of the COVID-19 pandemic: An in-depth exploration of anxiety, depression, and insomnia and the influence of quarantine measures on daily life. In Healthcare (Vol. 11, No. 17, p. 2418). MDPI. https://doi.org/10.3390/healthcare11172418

Aljaberi, M. A., Lee, K. H., Alareqe, N. A., Qasem, M. A., Alsalahi, A., Abdallah, A. M., ... & Lin, C. Y. (2022, September). Rasch modeling and multilevel confirmatory factor analysis for the usability of the impact of event Scale-Revised (IES-R) during the COVID-19 pandemic. In Healthcare (Vol. 10, No. 10, p. 1858). MDPI. https://doi.org/10.3390/healthcare10101858

Al-Tammemi, A. A. B., Barakat, M., Al Tamimi, D. A., Alhallaq, S. A., Al Hasan, D. M., Khasawneh, G. M., ... & Kolozsvári, L. R. (2021). Beliefs toward smoking and COVID-19, and the pandemic impact on smoking behavior and quit intention: findings from a community-based cross-sectional study in Jordan. Tobacco use insights, 14, 1179173X211053022. https://doi.org/10.1177/1179173X211053022

Barba, R., Rosado, C., Pardo-Moreno, J., & Rey-Biel, J. (2020). Managing people, roles, and resources during Covid-19 surge. NEJM Catalyst Innovations in Care Delivery, 1(3). https://doi.org/10.1056/CAT.20.0152

Crandall, W. R., Parnell, J. A., & Spillan, J. E. (2013). Crisis management: Leading in the new strategy landscape. Sage Publications.

El Abiddine, F. Z., Aljaberi, M. A., Gadelrab, H. F., Lin, C. Y., & Muhammed, A. (2022). Mediated effects of insomnia in the association between problematic social media use and subjective well-being

among university students during COVID-19 pandemic. Sleep Epidemiology, 2, 100030. https://doi.org/10.1016/j.sleepe.2022.100030

Fares, Z. E. A., Ala'a, B., Gadelrab, H. F., Lin, C. Y., Aljaberi, M. A., Alhuwailah, A., & Roubi, M. L. (2021). Arabic COVID-19 Psychological Distress Scale: development and initial validation. BMJ open, 11(6), e046006. https://doi.org/10.1136/bmjopen-2020-046006

Gilmore, B., Ndejjo, R., Tchetchia, A., de Claro, V., Mago, E., Lopes, C., & Bhattacharyya, S. (2020). Community engagement for COVID-19 prevention and control: a rapid evidence synthesis. BMJ global health, 5(10), e003188. https://doi.org/10.1136/bmjgh-2020-003188

Güner, H. R., Hasanoğlu, İ., & Aktaş, F. (2020). COVID-19: Prevention and control measures in community. Turkish Journal of medical sciences, 50(9), 571-577. https://doi.org/10.3906/sag-2004-146

Hamouche, S. (2021). Human resource management and the COVID-19 crisis: Implications, challenges, opportunities, and future organizational directions. Journal of Management & Organization, 29(5), 799-814. DOI: https://doi.org/10.1017/jmo.2021.15

Kawulich, B. (2012). Collecting data through observation. Doing social research: A global context, 6(12), 150-160.

Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. International Journal of higher education, 6(5), 26-41.

Larkin, M., Flowers, P., & Smith, J. A. (2021). Interpretative phenomenological analysis: Theory, method and research. *Interpretative phenomenological analysis*, 1-100.

Mohammed, L. A., Aljaberi, M. A., Amidi, A., Abdulsalam, R., Lin, C. Y., Hamat, R. A., & Abdallah, A. M. (2022). Exploring factors affecting graduate students' satisfaction toward E-learning in the era of the COVID-19 crisis. European Journal of Investigation in Health, Psychology and Education, 12(8), 1121-1142. https://doi.org/10.3390/ejihpe12080079

Rehman, A. A., & Alharthi, K. (2016). An introduction to research paradigms. International journal of educational investigations, 3(8), 51-59.

Somekh, B., & Lewin, C. (Eds.). (2005). Research methods in the social sciences. Sage.

Wario, W. A. K. O., & GEBRU, A. (2022). Growing up under corona virus disease 2019 (COVID-19) pandemic and the impacts on children's socialization in Jimma City, Southwest Ethiopia. African Journal of Social Work, 12(5), 214-222. https://www.ajol.info/index.php/ajsw/article/view/255197