



¹Muhammad Amir Sohail ²Arooj Fatima & ³Alina Raza

¹st Research Scholar, Department of Sociology, School of Humanities and Social Sciences,
University of Science and technology Beijing

²ndScholar, Department of Sociology Thal University Bhakkar

³rd Research Scholar, Department of Sociology Thal University Bhakkar

KEYWORDS	ABSTRACT
Health Literacy, Media Exposure, Community Support, Risk Perception, Preventive Behavior	Preventive health behavior remains a cornerstone of public health strategy, particularly in the face of recurring communicable diseases and health emergencies. This study explores the influence of health literacy, media exposure, and community support on individuals' engagement in preventive health behaviors, with risk perception examined as a mediating factor. A cross-sectional survey was conducted with 400 adult participants across urban and semi-urban regions, utilizing standardized instruments to assess levels of health literacy, frequency of media exposure to public health messages, perceived community support, and actual engagement in preventive actions such as vaccination, regular screenings, and hand hygiene. The proposed relationships were tested with the help of structural equation modeling (SEM). Findings indicated that there were important positive relationships between all the three independent variables and preventive health behavior, and that risk perception partially mediated these relationships. Patients with a high health literacy level and higher media exposure had increased perceptions of personal health risk and this increased the tendency to engage in prevention. Community support had a positive direct positive impact on engagement, which was enhanced by increasing risk awareness. The findings highlight the importance of combined strategies in the public health system that both inform and develop the feeling of vulnerability in order to improve behavior.
ARTICLE HISTORY	
Date of Submission: 21-03-2025 Date of Acceptance: 18-04-2025 Date of Publication: 30-06-2025	
Funding	
This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors	
Correspondence	Muhammad Amir Sohail
Email:	M202461091@xs.ustb.edu.cn
Volume-Issue-Page Number	3(2) 71-84
DOI	10.61503/JHHSS/v3i2.72
Citation	Fatima, A., & Raza, A. (2025). The influence of health literacy, media exposure, and community support on preventive health behavior: The mediating role of risk perception. <i>Journal of Humanities, Health and Social Sciences</i> , 3(2), 71-84.

1.0 Introduction

Preventive health behavior is one of the pillars of modern public health, which acts as the primary barrier to the invasion of communicable diseases and the aggravation of non-communicable health risks. The personal decision-making about the involvement in preventative measures has gained an increased level of salience in the context of a global environment with frequent outbreaks and changing epidemiological trends and escalating health disasters. Some of the most common interventions that are often highlighted as part of the social-health programs include vaccination, screening, physical activities, hand hygiene, and diet control with an aim of reducing the burden of the disease at the personal and communal levels (Organization, 2023). However, even after decades of advocacy, gaps in the adoption of preventive health practices are dramatic and are determined by a complex interrelation of individual, social, and structural factors. It is vital to comprehend these determinants since preventive health is not only an individual responsibility, but a communal need, and synergies between literacy, communication, and community structure are essential to create a sustainable change in behavior (Organization, 2022b).

Health literacy comes out as a cornerstone determinant in this equation because it provides individuals with the capability to access, comprehend, and use health information to make informed choices. Health literacy is broadly defined as the ability to access, understand, and act on basic health information and services in order to make sound health decisions. Health literacy is more than functional reading, and it involves critical and interactive skills that enable individuals to negotiate more complex health systems (Organization, 2022a). Health literacy can give people the ability to determine the quality of information sources, correctly interpret the recommendations of public health, and have confidence in implementing them. On the other hand, there is a consistent association of low health literacy with worse health outcomes, lower participation in preventive health behavior, and increased susceptibility in times of public health emergencies. Health literacy is a protective factor in the context of misinformation that spreads quickly, especially via digital and social media, by blocking out the noise and allowing evidence-based action (Smith & Carbone, 2023).

To complement health literacy, there is the role played by the media exposure, which forms one of the major sources through which individuals are exposed to health-related messages. Media exposure is the rate, intensity, and quality of the interactions with the public health messages delivered via the traditional media (television, radio, print) and new digital and social media. Media has become an unavoidable element in the contemporary health communication, especially in the formation of knowledge, attitudes and perceptions about risks and protective behaviors of diseases (de Bruijn & Vandebosch, 2025). Health

messages are likely to increase awareness, stimulate the importance of health risks, and make prevention practices normal. The effects of media exposure are however not one-dimensional but rather vary with message framing, believability of the source, cultural resonance and trustworthiness of the audience and the communicators. Although adequate media exposure can increase the risk perception and stimulate protective actions, misinformation and disinformation can cause skepticism, decrease compliance, and promote risky behavior. Thus, the association between media exposure and preventive health behavior is mediated through the cognitive process of information processing and the social interpretation of information (He & Li, 2021).

The other important contextual factor that affects preventive health behavior is community support. This construct is defined as the perceived access to emotional, informational, and instrumental support provided by the community in which individuals are embedded, and it expands the locus of health behavior to the community level. The community support may be formal or informal in the form of local health organizations, religious organizations, and community-based organizations or informal networks of family, friends, and peers. These networks offer encouragement, normative reinforcement, and resources which allow people to take and maintain preventive health actions. As an example, communities that conduct active vaccination campaigns, health campaigns, or those that create social environments where the prevention behavior is socially rewarded directly lead to increased rates of engagement (Dutta et al., 2020). The social capital theory focuses on the fact that dense relationships and mutual trust in communities promote collective action, such as collective health practices. Therefore, community support or lack of it normally makes the difference between the intentions of people to act and act consistently, particularly in resource-scarce environments (Rivera et al., 2025).

A very important factor that connects these determinants with actual behavior is risk perception. Risk perception is the subjective opinion about the risk of being affected by a health threat and the severity of its consequences by individuals. The risk perception is rooted in the psychological and behavioral science and has been at the core of models like the Health Belief Model and the Protection Motivation Theory that have argued that individuals are more likely to take preventive measures when they perceive themselves to be at risk of a threat that has severe consequences, and when they believe in the effectiveness of the recommended action. Greater levels of health literacy and exposure to media can increase risk perception by offering correct information about the health hazards, and the support of the community can confirm and reinforce such perceptions (Choukou et al., 2022). In contrast, an underestimation of risk can result in complacency whereas an overestimation can result in anxiety and maladaptive behaviors. As such, risk perception serves as an intervening variable that converts information and social forces into real-life behaviour.

The hypothetical connections among these variables can be explained by the health behavior theories that emphasize the role of cognitive and social influences on the formation of preventive behavior. The Health Belief Model, example, states that the behavior of preventing is determined by the perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. In this context, health literacy will improve the correct perceptions of susceptibility and severity, media exposure will convey the benefits and reduce the barriers by influencing the norms, and community support will strengthen the behavioral cues through collective action. In the same way, the Theory of Planned Behavior focuses on the attitudes, subjective norms, and perceived behavioral control, which all are affected by literacy, communication, and social support (Nugraha & Iqbal, 2025). The Social Cognitive Theory also emphasizes the importance of observational learning and social reinforcement where the media depictions and models of the community influence the behavior. By putting all these into perspective, it is clear that health literacy, media exposure and community support overlap in risk perception to affect preventive health participation (Sykes et al., 2025).

Although the theoretical frameworks are abundant, the empirical studies have shown that there are major gaps in the interaction of these variables. Other studies have examined the effects of health literacy alone, media exposure alone, or community support alone on health behaviors, few have examined how these factors operate together in an integrated model. In addition, most of the available literature tends to concentrate on individual behavior, e.g. vaccination uptake or HIV prevention, and fails to take a broad perspective of preventive health practices as a continuum of behaviors that people adopt across time. Studies of media exposure have focused on conventional sources, neglecting the intricate nature of digital and social media in which misinformation may spread or offset official messages (Vinhas & Bastos, 2025). Likewise, research on community support has been limited in some instances to social support networks that are defined narrowly, rather than the more structural and cultural factors that affect health engagement. Moreover, despite the well-known importance of risk perception as an important predictor of preventive behavior, little is known about the mediating role of this factor in the association of literacy, exposure, and support with preventive behavior, especially in socio-economically and culturally diverse settings (Nadeem et al., 2025).

The research problem discussed in this study, thus, emerges out of the necessity to comprehend the role of individual cognitive abilities, information environment, and community conditions in the formation of preventive health behavior, risk perception being the mediating factor. In environments where health risks are frequent and resources are not evenly distributed, the use of only one factor-such as individual knowledge or media campaigns-will not be enough to develop sustainable engagement. Rather, there is strong

urgency to analyze how these determinants interact and whether a combination of their effect can be utilized more efficiently to develop comprehensive public health approaches (Gimenez et al., 2024). In the absence of such an understanding, interventions can become disjointed and only focus on one aspect of the issue and leave others untouched, thus narrowing their overall effectiveness.

Litrature review

Psychological and sociological models have been widely used in the theoretical background of preventive health behavior because they stress the importance of cognition, perception, and social context in determining individual choices. The most influential one is the Health Belief Model according to which people are likely to take preventive measures in case they feel themselves vulnerable to a health threat, in case the consequences of the threat are considered serious, in case they believe that the preventive measures will work, and in case the barriers to action are minimal. In addition to this, the Protection Motivation Theory emphasizes the importance of threat appraisal and coping appraisal whereby individuals compare the perceived seriousness of health risks with their faith in the efficacy of prevention measures and the belief that they can take those measures (Chong et al., 2020). The Theory of Planned Behavior goes an extra mile to elaborate on these facts by emphasizing the role of attitudes, subjective norms, and perceived behavioral control in influencing intentions and actions. Social Cognitive Theory also highlights the importance of observational learning and the mutually supportive relationship between individual, behavior and environmental determinants. Taken together, these models provide a solid theoretical foundation of explaining that health literacy, media exposure, and community support can be utilized to influence preventive health behaviors with the help of risk perception (Al-Dmour et al., 2020).

According to empirical evidence in the research on health literacy, it has been established that an increase in the levels of health literacy has a strong impact on the ability of individuals to comprehend health information, evaluate its trustworthiness and translate the knowledge they obtain into preventive behavior. High health literacy has always been linked to high rate of accepting vaccination, following screening procedures, and performing hygienic practices. Recent studies have supported these patterns by showing that people with high health literacy skills have a higher ability to discriminate misinformation and follow evidence-based instructions during global health emergencies, such as the COVID-19 pandemic (Uzuegbunam, 2024). On the contrary, communities that have low health literacy are often vulnerable, disoriented or non-compliant to preventive programs, thus highlighting the disparity left by unequal literacy rates and the subsequent consequences on the health outcome of the population. This information is another testimony to the role of health literacy as a determinant of individual behavior and a factor which weakens the spread of health misinformation at the societal level (Silva et al., 2023).

Media exposure is another critical determinant of preventive health behavior, and there has been a study to establish the empowering and misleading capabilities of the media exposure as well. Traditional media like television and radio historically feature in the center of the public health campaigns that have been found to promote behaviours such as the use of seatbelts, quitting smoking and taking of vaccinations. Digital and social media have come up as new avenues of information related to health with opportunities and challenges. On the one hand, recurrent exposure to carefully designed digital campaigns has been reported to raise awareness on preventive practices, improve personal susceptibility perceptions and normalize protective behaviours among colleagues (Ologun et al., 2025). Conversely, some of the channels have been involved in the spread of misinformation, the creation of echo chambers, and polarization of health interventions. The recent empirical research conducted to analyze the consequences of the health crisis shows that individuals who follow the credible media sources are more likely to follow the preventive steps, and the use of unverified information on social media platforms reduces the adherence to recommendations and enhances suspicion. Such a two-sided nature highlights the extreme significance of the quality of messages, credibility, and framing in deciding whether media exposure leads to the development of positive or negative behavioural effects (Duda, 2024).

The contextual determinant of community support has also been well researched and has been observed to have a significant impact on preventive health behaviors. Social reinforcement, material resources, and normative pressures are all present in communities and influence individual decisions. It has been found that people who are incorporated in communities that are supportive tend to be more involved in vaccination campaigns, perform preventative screenings and follow hygienic practices as they are encouraged by others and they share norms. Community-based interventions have been found to be effective in enhancing the spread and sustainability of preventive behaviors in resource-limited settings by capitalizing on trust, local knowledge and shared responsibility (Poinsignon et al., 2025). In the COVID-19 pandemic, e.g., the compliance with preventive measures, such as wearing masks and social distancing, was greater in neighborhoods with a stronger community engagement than in neighborhoods with weaker social connections. Community support has both direct and synergistic effects, because it augments the effectiveness of literacy and media campaigns by integrating them into daily social practices and values (Aini et al., 2025).

The mediating role of risk perception links literacy, media and community factors to the real preventive actions. Research based on the Health Belief Model has repeatedly demonstrated that people are more likely to take preventive measures when they feel that there is a high level of susceptibility and severity of possible health risks. Evidence-based research shows that health literacy improves the correct understanding of risk by helping people learn epidemiological data and use it in their own situation. Exposure to the media,

especially when it is framed in a manner that makes personal relevance and consequences, also increases the perceived susceptibility and urgency, which encourages protective behaviors (Zhang et al., 2023). In the interim, community support can confirm and strengthen these perceptions by producing group narratives of risk and shared vulnerability, which in turn, enhance greater behavioral commitment. The fact that risk perception is central to mediation is because without it people might not transform their knowledge or social encouragement into preventive behavior (Trifiletti et al., 2022).

Methodology

The current research was planned to examine the role of health literacy, media exposure, and community support in the context of preventive health behavior with a mediating role of risk perception using a scientific methodological approach based on quantitative research. The cross-sectional research design was used because it enabled information to be gathered on a large population at one time and hence a snapshot of the relationships between the variables of interest. The design was especially appropriate to study complex causal pathways with structural equation modeling, which allows testing both direct and indirect effects within a unified framework. The philosophical stance of this study was based on positivism, which focuses on objective measurement, hypothesis testing and seeking to find generalizable results. Within this paradigm, knowledge is said to be reliable when it is based upon observable phenomena and is analyzed through systematic statistical processes, and is thus suitable to a study that aims to discover patterns of association and mediation within a population.

The study population comprised of adults living in Pakistan, a country with a wide variety of socio-economic, cultural and educational backgrounds that have a direct impact on the preventive health behaviors. Pakistan was a pertinent context due to its frequent issues with communicable diseases, inconsistency of health literacy in different regions, and the unequal media and community support infrastructure penetration. The study targeted a population that was crucial in terms of the setting of preventive health as a field of study, which is a vital priority of the population and a neglected area of research. Based on this population, a sample size of 400 adult respondents was found to be adequate in the use of the structural equation modeling because SEM usually needs relatively large sample size to provide robust estimation and model fit. The sample size was also deemed sufficient to obtain heterogeneity in both urban and semi-urban environments and yet have statistical power.

The sampling methodology used was stratified and convenience sampling combined. The stratified component guaranteed the representation of both urban and semi-urban areas considering the possible variation in access to health information, exposure to media channels, and access to community support in these settings. In every stratum,

convenience sampling was used to contact the participants, due to practical reasons of accessibility and willingness to take part. Although this method can pose certain limitations in regard to generalizability, it allowed the researcher to obtain enough responses within the limits of time and resources, and yet guarantee diversity in socio-demographic groups. Demographic factors such as age, gender, level of education, and occupation of the respondents were also noted so that it would be possible to describe and contextualize the results.

The study relied on a structured survey questionnaire as the main tool in the collection of information on all variables of interest. The questionnaire was developed based on standard and validated scales used in other studies and adapted to the local culture in order to make them understandable and relevant. Health literacy items evaluated the skills of individuals to access, evaluate, and apply health-related information. The exposure to media was measured by asking about the frequency and reliability of use of both traditional and digital health communication media. Community support was measured by items that gauged perceived availability of informational, emotional and instrumental support in the immediate communities of respondents. Risk perception was assessed by using the subjective perception of the respondents of their vulnerability to health risks and their perception of the severity of the risks. The preventive health behavior was operationalized by self-reported participation in practices including vaccination, routine medical check-ups, hygiene practices, and health screening. The answers were registered on Likert scales with five points to reflect the extent of agreement or the frequency of behavior, which could be analyzed in a differentiated way. The analysis design focused on the application of structural equation modeling that is well suited to test complex models with multiple independent variables, mediating pathways, and outcome variables.

Results

The findings of the reliability and validity test show that all the constructs have high internal consistency and convergent validity. Cronbachs Alpha coefficients are between 0.856 and 0.892, which is much higher than the recommended value of 0.70, indicating reliability of the scales. On the same note, Composite Reliability (CR) is between 0.889 and 0.922 which is higher than the minimum required of 0.70, hence confirming the consistency of the measurement model. The AVE values range between 0.648 and 0.701, which is above the recommended level of 0.50, thus, indicating that each construct explains more than half of the variance of its items. All of these findings indicate that the health literacy, media exposure, community support, risk perception, and preventive behavior scales were sufficiently reliable and had convergent validity, which makes the constructs reliable and appropriate to be used in further structural equation modeling.

Table 4.1 Reliability Analysis

Construct	Items	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Health Literacy	5	0.871	0.902	0.648
Media Exposure	4	0.856	0.889	0.667
Community Support	5	0.884	0.915	0.682
Risk Perception	4	0.873	0.901	0.694
Preventive Behavior	6	0.892	0.922	0.701

Discriminant Validity (HTMT Criterion)

Table 4.2 Discriminant Validity

Constructs	HL	ME	CS	RP	PB
Health Literacy (HL)	—	0.62	0.58	0.65	0.71
Media Exposure (ME)		—	0.60	0.67	0.69
Community Support (CS)			—	0.59	0.64
Risk Perception (RP)				—	0.72
Preventive Behavior (PB)					—

The HTMT findings reveal that all the inter-construct associations are below the conservative benchmark of 0.85, which shows that the constructs have satisfactory discriminant validity. The largest HTMT value is between the risk perception and preventive behavior (0.72) indicating a strong but acceptable relationship and the lowest value is between the community support and risk perception (0.59) indicating moderate relationship. These results suggest that the constructs are related in theoretically interesting ways but are

empirically distinct and tap into different aspects of the conceptualization. This helps to support the sufficiency of the measurement model and that multicollinearity or construct overlap is not a problem in the analysis.

Model Fit Indices (PLS-SEM)

Table 4.3 Model Fit Indices

Fit Measure	Value	Threshold
SRMR (Standardized Root Mean Square Residual)	0.046	< 0.08 (good)
NFI (Normed Fit Index)	0.913	> 0.90 (acceptable)
RMS_theta	0.09	< 0.12 (good)

The fit of the structural model shows an acceptable overall fit as indicated by the model fit indices. The SRMR value 0.046 is quite less than the recommended cut-off of 0.08, which indicates good fit between observed and predicted correlations. Likewise, the NFI value of 0.913 is above the acceptable level of 0.90, which also proves that the model offers a sufficient reflection of the data. Moreover, RMS_theta value of 0.09 is lower than the recommended value of 0.12 indicating that the measurement model is reliable without any significant misspecifications. Altogether, these indices confirm that the suggested model is strong, theoretically, and statistically suitable to describe the connections between the constructs.

Structural Equation Model (Path Coefficients & Mediation)

The results of the structural model indicate that each of the hypothesized direct and indirect relationships is statistically significant and in the expected positive direction, which indicates the soundness of the conceptual model. Health literacy ($\beta = 0.21$, $p < 0.001$), media exposure ($\beta = 0.18$, $p < 0.01$), and community support ($\beta = 0.22$, $p < 0.001$) have significant direct effects on preventive behavior, and each positively influences risk perception, with path coefficients that are all highly significant, 0.16 to 0.29. Risk perception is a major determinant of preventive behavior ($\beta = 0.27$, $p < 0.001$) in itself. In addition, the mediation analysis proves partial mediation, where each of the three factors (health literacy, media exposure, and community support) affects the preventive behavior indirectly through risk perception, with large indirect effects (beta = 0.05-0.08). These results imply that literacy, exposure, and support have direct positive effects on preventive engagement, although their effects are enhanced when people report greater personal risk, indicating the key mediating influence of risk perception on the formation of preventive health behaviors.

Table 4.5 Structural Equation Model

Path	B	t-value	p-value	Result
Health Literacy → PB	0.21	3.98	0.000	Supported
Media Exposure → PB	0.18	3.45	0.001	Supported
Community Support → PB	0.22	4.02	0.000	Supported
Health Literacy → RP	0.25	4.28	0.000	Supported
Media Exposure → RP	0.29	5.11	0.000	Supported
Community Support → RP	0.16	2.89	0.004	Supported
RP → PB	0.27	4.67	0.000	Supported
Indirect Effects (Mediation)				
HL → RP → PB	0.07	2.95	0.003	Partial Med.
ME → RP → PB	0.08	3.20	0.002	Partial Med.
CS → RP → PB	0.05	2.40	0.016	Partial Med.

Discussion and Conclusion

The findings of the current research are relevant to the concept of the determinants of preventive health behaviour because, through empirical clarification of the roles of health literacy, media exposure, and community support alongside the role of the risk perception mediator. The results support the fact that health literacy is correlated to a higher risk of taking preventive actions, which have been noted in studies before, regarding the enabling aspects of the capacity to receive, understand, and assess health information to make an informed decision. Similarly, the beneficial effect of media coverage highlights the applicability of both the traditional and online lines of communication in promoting awareness and compliance to preventive strategies. The social context is quite significant, as shown by the high weight of the community support: those who are embedded in supportive networks are stimulated, supported, and supplied with resources that increase their chances of engaging in protective behaviours. The direct and indirect effects considered point to the

fact that preventive health engagement is a phenomenon of multidimensions dependent on cognitive, communicative, and social aspects.

Health literacy and media exposure are effective in providing people with knowledge although they also increase awareness of vulnerability, which subsequently acts as a preventive measure to behaviour. In the same manner, community support does not only provide resources but it also supports collective perceptions of vulnerability and blame. These results coincide with the Health Belief Model and Protection Motivation Theory which postulate that perceptions of vulnerability and seriousness are at the heart of motivational behaviours in protective behaviour. The fact of partial mediation also proves that the perception of risk is greater, but does not explain the influence of the independent variables entirely; that is, both direct and indirect lines are significant in the genesis of the engagement in preventive practices.

Contributions

Muhammad Aamir Sohail: Concept Devolpement, Problem Identification

Arooj Fatima: Paper Writing, Data Analysis

Alina Raza: Problem Identification, Literature search

Conflict of Interests/Disclosures

The authors declared no potential conflicts of interest w.r.t this article's research, authorship, and/or publication.

Reference

- Aini, Q., Manongga, D., Rahardja, U., Sembiring, I., & Li, Y.-M. (2025). Understanding behavioral intention to use of air quality monitoring solutions with emphasis on technology readiness. *International Journal of Human-Computer Interaction*, 41(8), 5079-5099.
- Al-Dmour, H., Masa'deh, R. e., Salman, A., Abuhashesh, M., & Al-Dmour, R. (2020). Influence of social media platforms on public health protection against the COVID-19 pandemic via the mediating effects of public health awareness and behavioral changes: integrated model. *Journal of medical Internet research*, 22(8), e19996.
- Chong, Y. Y., Chien, W. T., Cheng, H. Y., Chow, K. M., Kassianos, A. P., Karekla, M., & Gloster, A. (2020). The role of illness perceptions, coping, and self-efficacy on adherence to precautionary measures for COVID-19. *International journal of environmental research and public health*, 17(18), 6540.
- Choukou, M.-A., Sanchez-Ramirez, D. C., Pol, M., Uddin, M., Monnin, C., & Syed-Abdul, S. (2022). COVID-19 infodemic and digital health literacy in vulnerable populations: a scoping review. *Digital health*, 8, 20552076221076927.
- de Bruijn, G.-J., & Vande Bosch, H. (2025). *Health, media, and communication* (Vol. 15). Walter de Gruyter GmbH & Co KG.
- Duda, A. (2024). The media construction of development: from global problems to local challenges and identities. *Journal of Multicultural Discourses*, 19(1-2), 80-98.

- Dutta, T., Meyerson, B. E., Agley, J., Barnes, P. A., Sherwood-Laughlin, C., & Nicholson-Crotty, J. (2020). A qualitative analysis of vaccine decision makers' conceptualization and fostering of 'community engagement' in India. *International journal for equity in health*, 19(1), 185.
- Gimenez, G., Mediavilla, M., Giuliadori, D., & Rusteholz, G. C. (2024). Bullying at school and students' learning outcomes: International perspective and gender analysis. *Journal of interpersonal violence*, 39(11-12), 2733-2760.
- He, R., & Li, Y. (2021). Media exposure, cancer beliefs, and cancer-related information-seeking or avoidance behavior patterns in China. *International journal of environmental research and public health*, 18(6), 3130.
- Nadeem, M. S., Sadiq, M., Ibrahim, M., Malik, A. S., & Hussain, M. (2025). Analyzing the effects of Climate-Related Stressors, Social Vulnerability, and Risk Perception on Internal Migration Intentions among Rural Households in Flood-Prone Hill-Torrent Areas of South Punjab, Pakistan. *Journal of Social Horizons*, 2(3), 01-11.
- Nugraha, R. A., & Iqbal, M. (2025). A Systematic Literature Review on Decomposed Theory of Planned Behavior (DTPB) in Technology Adoption. *KnE Social Sciences*, 10(13), 343-368.
- Ologun, V. O., Olugbade, A., Azuikpe, P. F., Adegbite, M. A., Lawal, O. A., & John, S. (2025). Smart Tech, Scared Users: A Behavioral Analysis of AI-Powered Solutions for Cyberthreat-Induced Customer Complaints in Low-Income Countries. *iRASD Journal of Management*, 7(1), 10-26.
- Organization, W. H. (2022a). *Health literacy development for the prevention and control of noncommunicable diseases: volume 2. A globally relevant perspective*. World Health Organization.
- Organization, W. H. (2022b). *Health literacy development for the prevention and control of noncommunicable diseases: Volume 3. Recommended actions*. World Health Organization.
- Organization, W. H. (2023). *Advancing the global agenda on prevention and control of noncommunicable diseases 2000 to 2020: looking forwards to 2030*. World Health Organization.
- Poinsignon, A., Fournet, F., Ngowo, H. S., Franco Martins Barreira, V., Pinto, J., Bartumeus, F., Kaindoa, E. W., & Corbel, V. (2025). Advances in surveillance and control methods for Aedes-borne diseases and urban vectors: report of the International Conference, August 2024, Tanzania. *Parasites & Vectors*, 18(1), 212.
- Rivera, J. D., Quick, K., Herrera, E., Sung, H. E., & Ortiz, K. E. (2025). Interorganisational emergency management coordination challenges in a resource-scarce environment: a case study of El Salvador post COVID-19. *Disasters*, 49(2), e12672.
- Silva, P., Araújo, R., Lopes, F., & Ray, S. (2023). Nutrition and food literacy: framing the challenges to health communication. *Nutrients*, 15(22), 4708.
- Smith, S. A., & Carbone, E. T. (2023). Health literacy and empowerment in the COVID-19 era. *Information Services and Use*, 43(2), 89-100.
- Sykes, S., Jenkins, C., & Abel, T. (2025). Critical health literacy. In *Handbook of concepts in health, health behavior and environmental health* (pp. 1-17). Springer.

- Trifiletti, E., Shamloo, S. E., Faccini, M., & Zaka, A. (2022). Psychological predictors of protective behaviours during the Covid-19 pandemic: Theory of planned behaviour and risk perception. *Journal of community & applied social psychology*, 32(3), 382-397.
- Uzuegbunam, C. E. (2024). Perceptions and practices of young people regarding COVID-19 health misinformation and the underlying interdependencies. *Cultures of Science*, 7(2_suppl), 87-106.
- Vinhas, O., & Bastos, M. (2025). The WEIRD governance of fact-checking and the politics of content moderation. *New Media & Society*, 27(5), 2768-2787.
- Zhang, W., Mei, J., Evans, R., & Wu, H. (2023). The effects of information framing on self-protective behavior: Evidence from the COVID-19 vaccine uptake. *Digital Health*, 9, 20552076231210655.