Perception of students and lecturers of the University of Nigeria, Nsukka (UNN) of factors contributing to Covid-19 vaccine hesitancy (VH) and the roles of social workers

¹Stephen I. Ezema, ¹Ngozi E. Chukwu & ¹Henry Ajibo

¹Department of Social Work, University of Nigeria, Nsukka

Abstract

Vaccine hesitancy (VH) is the general public's reluctance to use vaccines despite perceived public health benefits. The COVID-19 vaccine met this apathy; as a result, it has become a global threat, impeding efforts to combat the pandemic. This research examined the perception of students and lecturers of University of Nigeria, Nsukka on factors that contribute to vaccine hesitancy. The study used an exploratory research design with an in-depth interview guide utilised as a data collection instrument to elicit the perspectives of 10 study participants (five students and five academic staff members) randomly selected from five faculties. Data were recorded and transcribed verbatim. Key themes were extracted following reflexive thematic analysis. The results were around four distinct themes: assessment of VH, factors responsible for VH, effects of VH, and social work strategies to overcome VH. The study concludes that social workers must act as change agents by participating in public education campaigns and community education about the importance of the vaccine, as well as dispelling misinformation that leads to vaccine apathy. To combat hesitancy, we recommend that government and non-governmental organisations provide adequate resources for social workers to carry out this task and establish health education and information centres in rural communities and on university campuses.

Keywords: COVID-19, vaccine hesitancy, factors, students, lecturers, social workers, University of Nigeria

Introduction

COVID-19 has emerged as a major public health and socioeconomic development concern worldwide. This is primarily due to its significant impact on the health sector, as well as the negative effects it has been linked to in societies and economies around the world (Di-Domenico et al., 2020; Kumari & Toshniwal, 2020). The pandemic has posed a significant risk to both physical and mental health of the general population. The development of vaccines was

viewed as an effective strategy for containing the virus's spread (Kumari et al., 2021). However, Vaccine Hesitancy (VH) has emerged as a global challenge with increasing concern, despite the availability of COVID-19 vaccines (European Parliament, 2020).

The World Health Organization (WHO), the European Commission, and France launched COVID-19 Vaccines (ACT Together) as a global response strategy to the COVID-19 pandemic (United Nations, 2020). Different vaccines were established as part of a global initiative to ensure equitable and timely access to the COVID-19 vaccine in 190 countries worldwide, regardless of their developmental stage or level of income (Berkley, 2020). Despite the potential benefits of the COVID-19 vaccine, anecdotal evidence suggests that many people are reluctant to accept the proposed COVID-19 vaccines, limiting the effectiveness of the COVID-19 outbreak response (WHO, 2020). Vaccine hesitancy (VH) is an ambiguous concept with an uncertain theoretical base. VH has been defined as a set of beliefs, attitudes, or behaviours, or some combination of them, shared by a large and diverse population and including people who exhibit reluctant conformism (they may decline, delay, or accept a vaccine despite their doubts) and vaccine-specific behaviours (Peretti-Watel et al., 2015). Renowned political commentators, religious clerics, and journalists have made a number of exaggerated statements that may sway public opinion against COVID-19 vaccines (Sadaqat et al., 2021). Despite scientific reports stating no evidence of serious and longstanding adverse effects after vaccination, the public has remained sceptical (Khan et al., 2020).

VH increased the vulnerability of unimmunised citizens in large urban areas to the COVID-19 outbreak in the United States, Canada, and Europe (Centers for Diseases Control and Prevention, [CDC] 2020). Pakistan is another country where consistent barriers to vaccination against COVID-19 exist. COVID-19 Vaccine Global Access (COVAX) delivered the first batch of COVID-19 vaccines to Nigeria in March 2021. Being the third African country (after Ghana and Côte d'Ivoire) to receive the shots (United Nations Children's Fund [UNICEF], 2021). Many Nigerians, however, do not see the need for COVID-19 vaccines, particularly those who do not believe the Coronavirus exists.

Social work is both a practice and an academic discipline that promotes social change and development, social cohesion, and people's empowerment and liberation. Social work involves people and structures in addressing life challenges and improving well-being (International Federation of Social Workers, 2014). The need to educate the public about the importance of COVID-19 vaccines should serve as a wake-up call to all social workers. The COVID-19 pandemic provides an opportunity for social workers to apply the skills and theories of human behaviour and social systems that their training provides them with. The practice of all social work values in the *Code of Ethics*

is needed in the time of a public health emergency like COVID-19 (Walter-McCabe, 2020). They also aid in the provision of awareness, health education, and psychosocial support, among others (Okafor, 2021). COVID-19 poses numerous psychological, emotional, physical, and health challenges, not only to the individual who is wary of the COVID-19 vaccine but also to the entire community (Pedrosa et al., 2020). It is a health issue that affects people's physical and psychological well-being, necessitating the services of social workers (Walter-McCabe, 2020; Yeshiva University, 2020). Social workers educate the public about the severity of the COVID-19 pandemic and help to reduce community fear by raising awareness about the importance of vaccination. By involving community stakeholders such as traditional heads, chiefs, opinion group leaders, and religious leaders, social workers sensitise and mobilise community members for COVID-19 vaccination (Ilesanmi, Afolabi & Fakayode, 2020). In this regard, community mobilisation has two goals: first, to discredit false reports about COVID-19 vaccines, and second, to ensure health education about their benefits.

Several studies on COVID-19 vaccine hesitancy have recently been conducted. Sadaqat et al., (2021), for example, investigated the relationship between university curriculum and COVID-19 VH among medical and non-medical university students. The researchers concluded that non-medical students were more hesitant than medical students, who were more willing due to their knowledge and understanding of vaccines. Dubé and MacDonald (2020) investigated how a global pandemic can affect VH. They concluded that while it is impossible to predict the impact of the pandemic on VH, it is unlikely that concerns and doubts about vaccines will disappear to ensure that COVID-19 vaccines will be accepted eagerly by everyone; Adejumo et al. (2021) explored COVID-19 vaccine perceptions and willingness to receive vaccination among Nigerian health workers. They concluded that perceptions about the COVID-19 disease and willingness to receive vaccines were suboptimal among health workers, and Barello et al. (2020) examined COVID-19 vaccine hesitancy among university students. Uzochukwu et al. (2021) also studied COVID-19 VH in a tertiary educational institution in Awka, Nigeria. According to their findings, 5% of the university community was willing to receive the COVID-19 vaccine, and the hesitancy rate among staff and students was $65.04\pm5.00\%$. The study concluded that COVID-19 VH is prevalent among Nigerian university staff and students and is significantly influenced by religion, marital status, and fear of the unknown.

Only one study (Uzochukwu et al., 2021) conducted a study on COVID-19 VH among students and staff at a Nigerian university. To the best of our knowledge, however, no research has been conducted on the perception of students and lecturers of the University of Nigeria, Nsukka on the factors contributing to COVID-19 VH, or on the role of social workers in addressing the prevalent

anomalies of vaccine hesitancy. As a result, this study was designed to fill that void. The following questions served as our guide and were used to design the instrument for data collection: Are students and lecturers of UNN aware of COVID-19 VH; What are their perception of factors that influence COVID-19 VH; What are the outcome/effects of COVID-19 VH; and how can social workers help in the reduction of COVID-19 VH?

Method

Research design

The study adopted an exploratory research design. Exploratory research aids in gaining a deeper comprehension of novel issues that are not well-known and studied in depth but will not produce conclusive results (Bhat, 2023). This research design was employed because the COVID-19 vaccine is relatively new, and the perception of students and lecturers of the factors responsible for COVID-19 VH has not been well researched and defined in the literature and empirical studies in the study area. The researchers employed this research design because it was cost-effective as well as provided the researchers flexibility to delve into this unexplored research problem.

Study area

The study was conducted at Nsukka, which is the main campus of the University of Nigeria, Nsukka (UNN). UNN has other campuses: the University of Nigeria Enugu Campus [UNEC]; the University of Nigeria Teaching Hospital [UNTH]), Ituku-Ozalla and University of Nigeria Aba Campus [UNAC]). UNN Nsukka campus has 10 faculties: Agriculture, Arts, Biological Sciences, Education, Engineering, Pharmaceutical Sciences, Physical Sciences, Social Sciences, Vocational/Technical Education and Veterinary Medicine (Academic Planning Unit, UNN, 2021). UNN campus was selected based on its proximity to the researchers and was thus cost-effective. Another reason was, to the best of the researchers' knowledge, no study has been carried out on factors contributing to COVID-19 VH among undergraduate students and lecturers from the social work perspective.

Sampling procedure

The faculties, departments, and respondents for the study were chosen using a multi-staged sampling technique that included simple random sampling, quota sampling, and availability sampling. This randomisation method ensured all respondents had an equal opportunity to be enlisted in the study. To begin, the researcher used a simple random sampling technique to select five faculties from among the ten at UNN Nsukka Campus. One person was selected by the researchers as a representative for each faculty. Folded pieces of paper with "yes" and "no" written on them were put in a basket for each faculty representative to pick from. Finally, those who picked "yes" were chosen for the study, which included faculty of the social sciences, biological sciences,

education, arts, and physical sciences. Similarly, one department from each of the five faculties included in the study was chosen using a simple random sampling technique by balloting. The Department of Social Work was therefore selected from the nine departments in the faculty of the social sciences. The same procedure was used to choose the departments of biochemistry from the five departments in the Faculty of Biological Sciences, Adult Education from the eight departments in the Faculty of Education, English from the nine departments in the Faculty of Arts, and geology from the seven departments in the faculty of physical sciences. Furthermore, two respondents, one student and one lecturer, were assigned to each of the five departments chosen for the study using quota sampling. The study included a total of ten respondents based on their availability at the time of the study and their willingness to participate in it.

Data collection

To collect data, an in-depth interview (IDI) guide was used. The IDI guide was developed based on the topics to be discussed and was intentionally left openended to allow participants to express themselves freely. These topics were selected based on the research questions. The three researchers moderated the IDI and were assisted by a note-taker. The researchers obtained verbal consent from the participants before the commencement of the interviews. The interviewes and researchers agreed on the dates, locations, and times for the interviews. Each interview lasted about 45-50 minutes and was audio-recorded with an Android mobile phone after obtaining permission from the respondents.

Data analysis

All the notes and audio recordings were organised. These notes and recordings were transcribed by the lead researcher verbatim and word processed for easy analysis by the researcher. The researchers independently analysed the transcripts and field notes using reflexive thematic analysis (Braun & Clarke, 2019). They each assigned codes to describe the interview content independently. The results were then validated by all of the researchers to ensure agreement. Finally, the findings were written up and sense-checked with the other authors by the lead author. The analysis was inductive and did not follow any pre-existing theoretical frameworks. Lockyer et al. (2021) utilised and validated this approach in a previous study.

Results Socio-demographic characteristics of the respondents:

Table 1: Socio-demographic characteristics of the respondents

Respondents	Sex	Age	Marital	Faculty	Department	Residence
			Status			
Student 1	Male	26	Single	Social	Social Work	Off
				Sciences		campus
Student 2	Male	23	Single	Biological	Biochemistry	Campus
				Sciences		
Student 3	Female	22	Single	Education	Adult Edu.	Campus
Student 4	Female	25	Single	Arts	English	Campus
Student 5	Female	24	Single	Physical	Geology	Campus
				Sciences		
Lecturer 1	Male	-	-	Social	Social Work	Off
				Sciences		campus
Lecturer 2	Male	-	-	Biological	Biochemistry	Campus
				Sciences		
Lecturer 3	Male	-	-	Education	Adult Edu.	Off
						campus
Lecturer 4	Female	-	-	Arts	English	Off
						campus
Lecturer 5	Female	-	-	Physical	Geology	Off
				Sciences		campus

Source: Field Survey 2022

According to Table 1, five lecturers and five students were interviewed for this study. The respondents' average age was 32 years. For anonymity, the ages and marital status of the lecturers were not presented in the table. Four of the ten respondents were married, while the other six were single. Similarly, five respondents live off campus, while the remaining five live on campus.

Assessment of awareness of COVID-19 VH

The study's findings revealed a high level of awareness of COVID-19 vaccine hesitancy from the perception of UNN students and lecturers. According to the respondents, avoiding vaccines was common among the populace; many refused vaccines, indicating VH. One of the respondents stated:

Yes, there is COVID-19 vaccine hesitancy; people are not responding to the vaccine because of some views about the vaccines. Some people believe that COVID-19 does not exist, so they do not have to take any vaccines. Some of my brothers believe that COVID-19 was government propaganda to collect money from international organisations such as WHO, IMF and CDC (Student 1, Department of Social Work, aged 26).

These opinions were shared by all respondents, including students and academic staff. They all expressed mixed feelings about the vaccines and were thus sceptical of them, just like the general public.

Factors responsible for COVID-19 VH

According to the study's findings, the study respondents clearly identified some factors responsible for COVID-19 VH. Some factors include people's lack of trust in the government and the healthcare system, religious leaders' misleading sermons, and fear of the negative effects of COVID-19 vaccines. Furthermore, the respondents' opinions revealed that the COVID-19 vaccine is government propaganda intended to amass wealth for itself. The populace does not trust the government's intentions; thus, they boycotted the government's admonition to its constituents to vaccinate against COVID-19, which was facilitated by some health personnel. One of the respondents stated:

Some people were not so worried about what the disease will do to them because they doubted the potency of the vaccines and the intentions of the government. They resorted to paying huge sums of money to get the vaccine certificate instead of taking the vaccine that was free. This was to enable them to be able to live their lives unhindered and travel whenever they wished (**Lecturer 2**).

Similarly, the respondents opined that religious leaders' negative position on the COVID-19 vaccine dissuaded the public from vaccination against COVID-19. Some of the religious leaders went as far as telling their congregation that the blood of Jesus has covered them; hence they do not need any vaccination against COVID-19. In addition, a substantial number of students and academic staff at the university boycotted the COVID-19 vaccination based on their fear of the side effects of the vaccines. A significant proportion of the respondents believe that vaccine uptake has side effects that are detrimental to health and mental well-being. Examples of quotes to illustrate the findings are as follows:

People believe that COVID-19 is a charade by the government, so taking the vaccines is not good for them. Religion is another factor, as many adhere to the preaching of their pastors who do not support COVID-19 vaccination. Many men of God told their congregation not to take the COVID-19 vaccine. Some people said that COVID-19 does not exist. (**Lecturer 4**).

Religious beliefs, many think they are covered with the blood of Jesus, which provides purification. Mistrust of COVID-19 vaccines is also another factor. Many believe that COVID-19 vaccines could result in complications, and also people do not trust the healthcare system and the government (Student 3, Department of Adult Education, aged 22).

Furthermore, many of the respondents refuse COVID-19 vaccine uptake on the grounds that the vaccine can kill or even shorten the life span of those who take it. As one of the participants said: "People do not trust their government to provide effective vaccines to contain the spread of COVID-19. They remain hesitant about vaccines because of these factors and also believe those who take the vaccine will not live a long life" (Student 1, Department Social Work, aged 26).

One of the factors responsible for COVID-19 vaccine hesitancy is the spread of false news. Some news reports maintain that COVID-19 vaccines reduce the life expectancy of people in Africa. People think the vaccines will reduce their life expectancy rate, so they remain hesitant about the vaccines (**Lecturer 5**).

Effects of COVID-19 VH

Opinions of study participants revealed unequivocally that COVID-19 vaccine hesitancy has negative consequences. These include: rendering the COVID-19 response ineffective; the virus's rapid spread; more outbreaks of the virus; an increase in death rates; restricting one's right to travel outside the country; and restricting the movement of unvaccinated people. To support the aforementioned assertions, the following are sample quotes from the responses:

When we fail to accept COVI-D-19 vaccines, it could increase the spread of the disease. People who are not vaccinated against the COVID-19 virus stand a greater chance of infecting other people with the virus. People are just afraid of the COVID-19 vaccines without considering the consequences of not vaccinating (**Lecturer 1**).

There could be another outbreak of COVID-19 if people do not take the vaccines; it makes it possible for the virus to keep spreading, which will increase death rates. The decision of a person not to take the COVID-19 vaccine makes the covid-19 responses ineffective (Student 3, Department of Adult Education, aged 22).

One of the effects is that it might limit your travel rights; it restricts movement globally. People who do not take the COVID-19 vaccine might not be allowed to travel outside the country. For example, teaching staff who got a scholarship for a PhD in China were told that they could not come over to China unless they were duly vaccinated (Lecturer 2).

Social workers' strategies to improve the acceptance of COVID-19 vaccines

The study revealed the following strategies that social workers may utilise to improve COVID-19 vaccine acceptance among university students and academic staff: community education, public enlightenment campaigns, reorientation programmes for students and faculty to address misinformation

about the COVID-19 vaccine, and inter-disciplinary social work practice. The following are some examples of quotes from respondents:

Social workers have a number of roles to play. One of these roles is community education. They can educate people through different platforms; since we are in the 21st century, social workers can use different channels to create awareness of the importance of COVID-19 vaccines. People have wrong information about the COVID-19 vaccine, which makes them avoid it. Social workers' engagement in community education will help the university community accept the COVID-19 vaccine (Student 2, Department of Biochemistry, aged 23).

Another respondent indicated the following:

Community enlightenment campaigns and reorientation programs are important aspects of improving COVID-19 vaccine acceptance. People need to be enlightened against their negative mentality about the COVID-19 vaccine. Social workers collaborate with other healthcare workers to sensitise the university community to the dangers of not taking the COVID-19 vaccine (Student 4, Department of English, aged 25).

Discussion of findings

Vaccine hesitancy has been a major public health issue that has concerned researchers. It includes a wide range of people and situations, as well as numerous explanatory factors such as socio-cultural contexts and individual and social group influence (Dubé et al., 2013). According to a previous study by Velan et al. (2012), there were contrasting profiles of attitudes among those who could be classified as vaccine-hesitant. VH became more visible with the COVID-19 outbreak and is found in various segments of Nigerian society, including health workers (Adejumo et al., 2021). As a result, the response to COVID-19 containment has been slowed. It is obvious that COVID-19 vaccine hesitancy is a serious concern that must be addressed from a multidisciplinary standpoint. COVID-19 vaccine hesitancy undoubtedly had negative consequences for students, faculty, families, and society. As a result, our study looked at the perception of students and lecturers on factors contributing to COVID-19 vaccine hesitancy and some social work interventions.

The findings of our study showed the perception of students and lecturers at the University of Nigeria, Nsukka on factors that contribute to COVID-19 vaccine hesitancy. Despite calls from the WHO, the CDC, the Nigerian Center for Disease Control, and others for everyone to get vaccinated against the virus in order to slow its spread (CDC, 2023), students and lecturers alike avoided the COVID-19 vaccine. The findings also supported the findings of Uzochukwu et al. (2021), who discovered a high level of COVID-19 vaccine hesitancy among Nigerian university staff and students. It also reveals that education does not

have influence on attitudes toward vaccination, as demonstrated by Velan et al. (2012)'s study in Israel. In contrast, a study conducted in Bangladesh by Rahman et al. (2022) discovered high COVID-19 acceptance among students. The high level of knowledge demonstrated by the students about COVID-19 vaccine dynamics was attributed to the significant level of vaccine acceptance. The foregoing invariably implies that if Nigerian students are provided with adequate knowledge of COVID-19 vaccine dynamics, the level of hesitancy will be drastically reduced.

A variety of factors contributed to the high level of COVID-19 apprehension according to the perception of students and lecturers of UNN. Some of the most important factors are as follows: denial of the existence of COVID-19, conspiracy theories, and the effectiveness of the vaccines. Denialism and reliance on "conspiracy theories" to undermine vaccine efficacy have been shown to reflect people's lack of trust and mistrust in science (Agley & Xiao, 2021). Previous research has discovered that distrust of science is not caused by ignorance or obscurantism but is shared by both highly educated and less educated people (Galliford & Furnham, 2017; Freeman & Bentall, 2017).

Other factors, according to the findings, are mistrust in the government and healthcare system, religious leaders' misleading sermons, and concern about the negative effects of COVID-19 vaccines. These findings were also consistent with the findings of Olu-Obiodum et al. (2022), who discovered that disbelief, lack of trust in the government, COVID-19 side effects, and fear of the unknown were all factors in COVID-19 vaccine hesitancy. Similarly, Ackah et al. (2022), in a systematic review of 71 articles on the COVID-19 vaccine, discovered that the primary reasons for vaccine hesitancy were concerns with vaccine safety and side effects, a lack of trust for pharmaceutical industries, and misinformation or conflicting information from the media.

Lack of trust or confidence in the Nigerian healthcare system significantly affected students and lecturers perception of COVID-19 VH. This implies that people are hesitant to get the COVID-19 vaccine because they are sceptical of the healthcare system's effectiveness. This finding is consistent with Sadaqat et al., (2021)'s finding that a lack of trust in the healthcare system accounts for 65% of people's hesitations about the COVID-19 vaccine. It means that people are refusing COVID-19 vaccines because they do not trust the efficiency of healthcare systems administering COVID-19 vaccines and their overall response strategy.

It was discovered from the perception of the students and lecturers that COVID-19 vaccine hesitancy has serious consequences. The following are some of the negative consequences: It renders the COVID-19 response ineffective, causes more outbreaks of the virus, and increases the death rate; it restricts one's right

to travel outside the country and restricts the movement of unvaccinated individuals. Similarly, Wiysonge et al. (2022) identified COVID-19 hesitancy as a global health threat. It poses a significant risk to the community, contributes to the virus's spread, and raises the death rate. The findings of this study also collaborated with the findings of Gorman et al. (2022), who discovered that COVID-19 hesitancy is a public health risk. Similarly, Dror et al. (2020) argue that vaccine hesitancy is still a barrier to full population immunisation against highly infectious diseases like COVID-19.

The study's findings indicate that social workers can play specific roles in ensuring COVID-19 vaccine acceptance among UNN students and lecturers. Respondents suggested that social workers can play the following critical role: enlightenment and education for the dissemination of more detailed information about the safety of the COVID-19 vaccines. This finding is consistent with the findings of Mant et al. (2021), who studied the willingness of university students in Ontario, Canada, to receive the COVID-19 vaccine. Students who indicated in the survey that they would be encouraged to get the COVID-19 vaccine if social workers or their doctor or pharmacist educated them about the vaccine were 76 times more likely to be willing to get the vaccine than those whom social workers or medical practitioners did not educate. This means that community education and enlightenment, particularly when provided by social workers or medical practitioners, may improve COVID-19 vaccine acceptance.

For time and cost reasons, only one of the four campuses that comprise the University of Nigeria was chosen for the study; as a result, efforts to provide a detailed description of the topic and the study's findings in the other three campuses of the university may be difficult. Non-academic staff, who make up a significant proportion of the university community, were excluded from the study sample. There could be a unique perspective from that quarter that needs to be shared, but they were left out. Despite the study's limitations and constraints, the findings are still valid and can inform policy and practice in the public health domain as it relates to vaccinations in the Nigerian context.

As a result of the challenges experienced by the government and healthcare community in implementing successful vaccination programmes in Nigeria, we recommend the involvement of social workers in the following areas:

- Collaborate with health agencies to implement community-focused enlightenment programs to increase vaccination knowledge and awareness through direct engagement of community leaders and religious leaders in vaccination promotion in the community.
- Link people with appropriate resource agencies to help them get vaccinated against the virus and improve their lives.
- Conduct relevant research on the factors influencing COVID-19 vaccine hesitancy, attitudes, access, willingness, and level of individual

- knowledge about COVID-19 vaccination in order to inform the implementation of effective government policies.
- Finally, we implore the government and non-governmental organisations to provide adequate resources to enable social workers to carry out this task. We also recommend the establishment of health education and information centres in rural communities and on university campuses to educate the public about the COVID-19 vaccine and its safety. Public sensitisation has been proposed to significantly increase vaccination rates among Nigerians (Nnaemeka et al., 2023).

Conclusion

The COVID-19 vaccine is essential for preventing the virus's spread and further outbreak. COVID-19 vaccine hesitancy, on the other hand, has been identified as a severe threat to global health safety. The study examined the perception of students and lecturers of the University of Nigeria, Nsukka on factors that cause COVID-19 vaccine apathy, as well as the role of social workers in countering vaccine apathy. We found poor perception of the COVID-19 disease among university community members, hence vaccine apathy. According to the findings, denial of the existence of COVID-19, lack of trust in the Nigerian government healthcare system, misleading sermons by religious leaders, disinformation, and fear of the adverse effects of COVID-19 vaccines are causes of VH, rendering virus containment ineffective. We conclude that social workers must act as change agents by participating in public education campaigns and community education about the importance of the COVID-19 vaccine, as well as dispelling misinformation that contributes to vaccine apathy. This will aid in the acceptance and inoculation of the COVID-19 vaccine among students and academic staff of the university. This role is only possible if the government and NGOs create an enabling environment that recognises the value of social workers as members of multidisciplinary public health teams in Nigeria. More research should be conducted by social workers and other social scientists to identify the factors that influence and contextualise certain attitudes and decisions of individuals in order to enable effective public education and policy implementation.

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