ENDOGAMI:
JURNAL ILMIAH KAJIAN ANTROPOLOGI

E-ISSN: 2599-1078

EFFECT OF A PARTICIPATORY HEALTH EDUCATION SESSION ON EMPLOYEES' KNOWLEDGE OF NAPZA, MENTAL HEALTH, AND WORK MOTIVATION: A ONE-GROUP PRETEST–POSTTEST STUDY IN MAKASSAR, INDONESIA

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Abstract *Workplace health is shaped by biological, psychosocial, and organizational contexts, yet knowledge of substance misuse, mental health, and work motivation is often addressed separately. This study examined short-term changes in employees' knowledge of narcotics, psychotropic substances, and other addictive substances (NAPZA), mental health, and work motivation following participatory health education, using medical anthropology as an interpretive framework. A quantitative, quasi-experimental one-group pretest–posttest design involved 36 office-based employees of a port services and logistics company in Makassar, Indonesia. A single educational session combined presentations with interactive discussion and questions, adapting principles of Participatory Rural Appraisal. Knowledge was measured immediately before and after the session using the same 15-item questionnaire covering three domains. Descriptive statistics and the Wilcoxon signed-rank test were applied; participants' documented questions provided contextual information. Mean knowledge scores increased from 77.78 to 94.58, a difference of 16.80 points. Thirty-five participants improved, one remained unchanged, and none declined ($p = 0.001$); all participants reached the high-knowledge category at posttest. Questions concerned organizational NAPZA prevention, access to mental health support, and approaches to workplace motivation. These findings indicate measurable immediate knowledge gains, not demonstrated changes in risk perception, behavior, or organizational health culture. Medical anthropology contextualizes the findings within employees' social experiences and organizational environments without treating those dimensions as measured outcomes. The absence of a comparison group and long-term follow-up limits causal inference and conclusions about knowledge retention. Future studies should include comparison groups, longitudinal assessments, and systematic qualitative exploration.*

Keyword:

Medical anthropology, workplace health education, NAPZA, mental health, work motivation, health-related knowledge.

Article Info

Received : 19 Sept 2026
Accepted : 01 Nov 2026
Published : 20 Nov 2026

1. Introduction

From the perspective of medical anthropology, health and illness are understood not merely as biological conditions but also as experiences shaped by cultural meanings, social relationships, and the broader contexts in which individuals live and interact. Cultural beliefs and social contexts influence how individuals perceive their bodies, interpret illness, and engage in health-related practices (Kleinman, 1978; Scheper-Hughes & Lock, 1987). Within the workplace, these processes are embedded in organizational culture and the social environment, which shape employees' health-related experiences, practices, and well-being (Sethi et al., 2017). Accordingly, the workplace can be conceptualized as a cultural arena in which organizational values, productivity demands, social relationships, habitual practices, and employees' everyday experiences intersect to shape understandings of health (Bjerke, 2020). Employees encounter not only occupational demands but also psychological stress, risks associated with the misuse of narcotics, psychotropic substances, and other addictive substances (NAPZA), changes in emotional states, and motivational dynamics that may affect their well-being and ability to sustain work activities. These challenges do not necessarily emerge as isolated concerns, as understandings of NAPZA, mental health, and work motivation are closely intertwined with social environments, organizational culture, communication patterns, and prevailing workplace norms. In this context, health-related knowledge plays a crucial role in shaping how individuals recognize risks, understand the consequences of particular behaviors, and respond to conditions perceived as potentially detrimental to their health and productivity (Ehmann et al., 2021). Therefore, examining employee health requires a broader analytical perspective that considers the interrelationships among health-related knowledge, health culture, and risk perceptions within the workplace.

Within medical anthropology, knowledge is understood as an integral component of cultural systems through which individuals construct meanings around their health experiences and the risks they encounter. Knowledge is shaped not only by formal information but also by everyday experiences, interpersonal interactions, shared group values, and practices embedded within specific social environments(Nastasi et al., 2015). Risk perceptions are similarly heterogeneous, as individuals may evaluate the same threat differently depending on their experiences, understanding, perceived vulnerability, and the social contexts in which they are situated (Hevey, 2017). In occupational settings, perceptions of NAPZA misuse may be associated with employees' understanding of the potential consequences of substance use for health, workplace safety, social relationships, and job performance (Doğan, 2026). Employee mental health is influenced by various psychosocial conditions in the workplace, including excessive job demands, emotional strain, interpersonal conflicts, limited job control, and inadequate social support, all of which have been associated with stress, exhaustion, burnout, and other mental health problems among working populations (Bakker & Demerouti, 2017; Harvey et al., 2017). Work motivation encompasses not only individuals' drive to achieve performance targets but also the extent to which their work fosters experiences of autonomy, competence, social relatedness, and meaningfulness (Gagné & Deci, 2005; Rosso et al., 2010). Job characteristics, including task significance, responsibility for work outcomes, autonomy, and feedback, may further strengthen employees' intrinsic motivation in performing their occupational roles (Hackman & Oldham, 1976). Within organizational settings, the concept of a culture of health refers to shared values, beliefs, attitudes, and practices related to health that emerge and evolve through interactions between employees and their organizational environment (Chang et al., 2020). In the present study, this concept is employed solely as an interpretive framework for understanding the social and organizational context in which health education is delivered,

rather than being operationalized as a measured construct or evaluated as an intervention outcome.

Recent developments in workplace health research reflect a shift in focus from traditional occupational health exposures and risks toward the psychosocial work environment, mental health, health promotion and prevention, and the development of health literacy that enables employees to understand and respond to various factors affecting their health (Burdorf & Rugulies, 2025; Ehmann et al., 2021). Research on workplace mental health has demonstrated that various psychosocial factors, including high job demands, emotional strain, interpersonal conflicts, limited job control, and inadequate social support, are associated with an increased risk of mental health problems among employees (Harvey et al., 2017). Mental health literacy, in turn, encompasses knowledge of mental health and mental disorders, attitudes toward mental illness and associated stigma, and knowledge and competencies related to help-seeking, with mental health knowledge constituting one of its key components (Wei et al., 2015). Meanwhile, research on NAPZA use in occupational settings has predominantly examined the issue in relation to prevention and intervention strategies, as well as its implications for absenteeism, reduced productivity, employee turnover, and workplace safety (Morse et al., 2022). Research on work motivation has also advanced considerably within organizational psychology, conceptualizing motivation as a dynamic, goal-directed process that influences how individuals select, initiate, direct, and sustain work-related behaviors and is associated with various occupational outcomes, including individual job performance (Cerasoli et al., 2014; Gagné & Deci, 2005; Kanfer et al., 2017; Lohela-Karlsson et al., 2022). Collectively, these developments indicate a growing recognition of employee health as a multidimensional phenomenon shaped by individual, social, and organizational factors. These topics are commonly investigated through different strands of occupational and organizational research. The present study addresses them together within a single educational session, without examining statistical associations among the three domains or treating them as indicators of a single underlying construct.

In the present study, knowledge of NAPZA, mental health, and work motivation is conceptualized as three distinct yet interrelated domains of workplace health education, rather than as components of a single, measurable culture-of-health construct. Research on NAPZA use in occupational settings has demonstrated that alcohol and other psychoactive substance use is associated with various workplace consequences, including absenteeism, reduced productivity, and safety-related concerns, prompting the development of workplace-based prevention and intervention strategies (Frone, 2019; Morse et al., 2022). Meanwhile, the occupational mental health literature has extensively examined the associations between psychosocial working conditions and stress, anxiety, depression, and burnout, whereas studies of work motivation have focused on motivational processes and their relationships with work-related behaviors and performance (Cerasoli et al., 2014; Harvey et al., 2017; Kanfer et al., 2017; Stansfeld & Candy, 2006). The predominantly separate examination of NAPZA, mental health, and work motivation suggests that these domains continue to be addressed through distinct research perspectives, with comparatively limited attention to their concurrent consideration within employees' everyday working lives. A medical anthropological perspective provides a framework for recognizing that health-related knowledge extends beyond cognitive processes and is shaped by cultural meanings, lived experiences, social interactions, shared values, and the sociocultural environments in which individuals work and interpret health-related issues. Against this background, the contribution of the present study lies in implementing participatory workplace health education sessions addressing NAPZA, mental health, and work motivation among employees of a company in Indonesia. Medical anthropology serves as the interpretive

framework, while short-term changes in participants' knowledge are assessed using a one-group pretest–posttest design.

Based on the aforementioned background and identified research gaps, this study aims to examine changes in employees' knowledge of NAPZA, mental health, and work motivation by comparing measurements obtained before and after the educational sessions. Specifically, the study focuses on employees' knowledge of NAPZA misuse and its consequences, mental health in the context of working life, and factors associated with work motivation. Drawing on a medical anthropological perspective, changes in knowledge are interpreted in recognition of the ways in which understandings of health may be shaped by individual experiences, cultural meanings, social relationships, and the broader workplace environment (Kleinman, 1978; Scheper-Hughes & Lock, 1987). Within this framework, risk perception is employed as a conceptual lens to distinguish between knowledge of health-related hazards and how individuals perceive and evaluate risks within their sociocultural contexts. This study is expected to contribute to medical anthropology by offering a contextually informed interpretation of changes in health-related knowledge within the workplace, while also providing preliminary evidence to inform the development of workplace health education initiatives that are responsive to the social and cultural dimensions of organizational environments.

2. Methods

This study adopts a medical anthropological perspective to understand health-related knowledge not merely as cognitive information possessed by individuals, but as knowledge that acquires meaning through lived experiences, beliefs, social relationships, and the cultural contexts in which individuals live and interact (Kleinman, 1978; Pelto & Pelto, 1997; Scheper-Hughes & Lock, 1987). Within medical anthropology, understandings of health and illness are closely associated with systems of meaning and explanatory models through which individuals and groups interpret health-related concerns and determine responses considered appropriate within their sociocultural contexts (Kleinman, 1978). Health-related knowledge can also be understood as an integral component of culturally embedded belief systems that inform decision-making processes and health practices, highlighting the importance of examining the relationships among knowledge, culture, and behavior within the social contexts in which such knowledge is applied (Pelto & Pelto, 1997). In the present study, the workplace is conceptualized as a social setting in which occupational experiences, interactions among employees, shared values and norms, and organizational conditions provide the context through which workers understand and interpret health-related issues. Research in the anthropology of work and health further emphasizes that employees' health conditions should be understood in relation to broader social and structural environments and lived occupational experiences (Flynn, 2018). Similarly, understandings of health risks extend beyond the objective existence of hazards to encompass cultural narratives, social experiences, and living conditions that influence how risks are recognized, perceived, and interpreted (Panter-Brick, 2014). Accordingly, a medical anthropological perspective is employed in this study as an interpretive framework for situating knowledge of NAPZA, mental health, and work motivation within the broader sociocultural context of workplace experiences (Flynn, 2018; Kleinman, 1978; Pelto & Pelto, 1997).

Operationally, the participatory health education sessions encompass three content domains: knowledge of NAPZA, mental health, and work motivation, while the empirical outcome measured is the short-term change in knowledge scores assessed through pretest and posttest measurements. A medical anthropological approach provides a conceptual basis for understanding that the reception of information during educational activities involves processes

of interpretation and meaning-making shaped by participants' experiences and sociocultural contexts, rather than merely the unidirectional transmission of information (Carrese & Marshall, 2000; Omobowale, 2022; Pelto & Pelto, 1997). Within the framework of this study, participants' discussions and responses during the educational sessions are treated as contextual information to support the interpretation of how educational content is received and understood, rather than as a separate qualitative dataset used to substantiate changes in specific constructs. Accordingly, risk awareness, understandings of mental health, and reflections on work motivation are positioned as conceptually relevant interpretive implications rather than empirically demonstrated outcomes of the intervention. This distinction is consistent with medical anthropological perspectives that emphasize the importance of context, meaning, lived experience, and social construction in understanding responses to health-related issues (Panter-Brick, 2014; Pelto & Pelto, 1997; Scheper-Hughes & Lock, 1987). Thus, the conceptual framework of this study explicitly distinguishes improvements in knowledge as the measured outcome from sociocultural dimensions as the basis for anthropological interpretation, ensuring that empirical claims remain confined to changes in knowledge scores observed through the one-group pretest–posttest design.

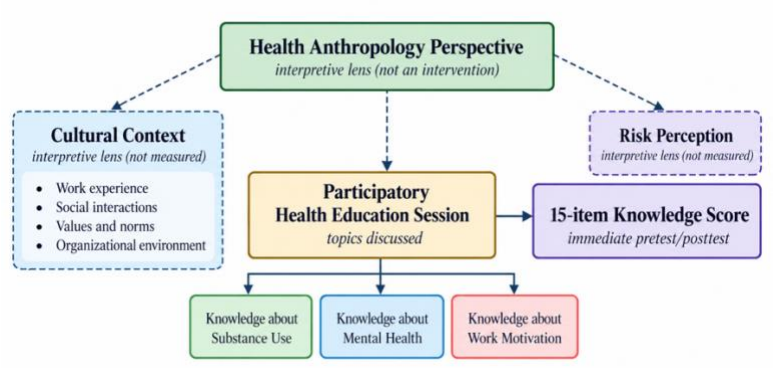


Figure 1. Conceptual Framework Linking the Educational Session to the Measured Knowledge Outcome

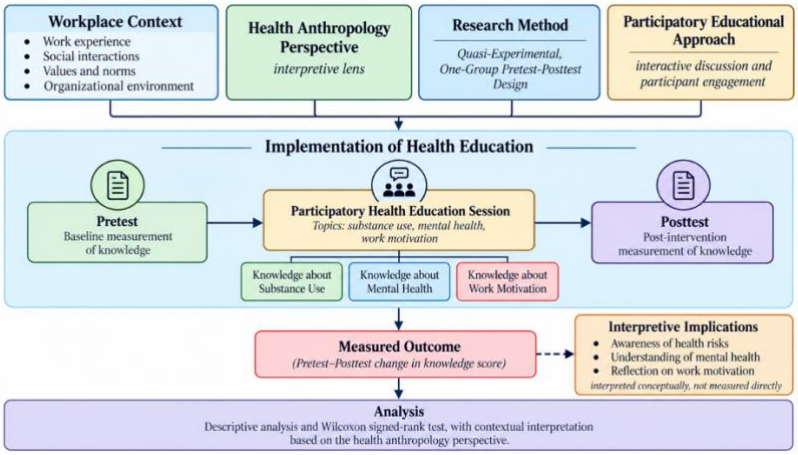


Figure 2. Overview of the Health Education Implementation Stages

This quantitative study used a one-group pretest–posttest design to describe immediate within-participant changes in knowledge following a single educational session. The intervention incorporated interactive discussion inspired by selected Participatory Rural Appraisal (PRA) principles; no independent comparison of PRA-based and conventional education was undertaken (Kariimah et al., 2025). The study aimed to assess changes in employees' knowledge of NAPZA, mental health, and work motivation through measurements conducted before and after the educational sessions. Knowledge was assessed among the same group of participants using pretest and posttest measurements. The educational intervention incorporated adapted PRA principles through interactive discussions and question-and-answer sessions following the delivery of educational content. These discussions were facilitated by the researchers in a single classroom setting, allowing participants to raise questions and relate the educational material to their everyday workplace experiences. Participants' questions were documented in writing by the moderator through field notes and subsequently presented descriptively according to three principal topics: NAPZA, mental health, and work motivation. This documentation served as contextual information to complement the quantitative findings on knowledge changes. Furthermore, a medical anthropological perspective was employed as the conceptual framework for interpreting the relevance of the findings within the sociocultural context of the workplace.

This study was conducted on September 16, 2026, at Company XYZ, a company operating in the port services and logistics sector in Makassar, South Sulawesi, Indonesia. A total of 36 office-based employees working regular hours from 8:00 a.m. to 5:00 p.m. Central Indonesia Time (WITA) participated in the study. Participants were purposively selected by the company's management, which organized the educational activity, based on their suitability for the target population of the intervention. The inclusion criteria were active employment at Company XYZ, assignment to an office-based position, attendance during the educational session, and willingness to participate as a respondent after receiving information about the study. The exclusion criteria included individuals who were not active employees of the participating work unit, those who did not belong to the targeted office-based employee group, those who were absent during the educational session, and those who declined to provide informed consent. All 36 employees who attended the educational session agreed to participate in the study and completed both the pretest and posttest assessments, resulting in no participant attrition between baseline and follow-up measurements. Ethical approval for this study was obtained from Universitas Negeri Makassar (Approval No. 3947/DST/UN36.12/TU/2026). The study was conducted in accordance with ethical principles governing research involving human participants, including the provision of information regarding the study objectives and procedures and the assurance of voluntary participation based on informed consent.

The intervention was delivered as a single structured, participatory health education session, beginning with a pretest to assess participants' baseline knowledge, followed by educational presentations addressing NAPZA, mental health, and work motivation. The session subsequently incorporated interactive discussions and question-and-answer activities focusing on issues related to participants' workplace experiences and concluded with a posttest to assess changes in knowledge following the intervention. The participatory component was implemented by providing opportunities for participants to relate the educational content to their everyday occupational experiences, including work-related stress, coping strategies, mental health, and work motivation. From a medical anthropological perspective, the workplace is understood as a social setting in which individual experiences, interactions among employees, organizational values and norms, and health-related knowledge are interconnected. Accordingly, this perspective was employed as an interpretive framework for understanding how participants

received, interpreted, and constructed meaning from the educational content within their sociocultural workplace context.

The educational intervention was conducted under the theme "Recognizing and Preventing the Risks of NAPZA Misuse: Mental Health and Work Motivation" and covered nine key topics: (1) biological, psychological, and environmental factors contributing to the risk of NAPZA misuse; (2) the relationship between work-related stress and substance use as a maladaptive coping mechanism; (3) myths and facts surrounding NAPZA; (4) psychological challenges and signs of occupational stress; (5) self-awareness, emotional regulation, work–life balance, and social support; (6) recognition of conditions requiring professional assistance; (7) the relationship between mental health and work motivation; (8) internal and external factors influencing work motivation; and (9) strategies for maintaining mental well-being and sustaining healthy work motivation. The educational content was delivered through a dialogic approach that encouraged participants to connect health-related information with their personal experiences and the social conditions of their workplace. This approach adapted the principles of Participatory Rural Appraisal (PRA), which emphasize active participant engagement in identifying health-related concerns, expressing perspectives, and developing understanding through participatory processes (Kurniawaty et al., 2023; Rafi et al., 2025).

The study employed pretest and posttest questionnaires, each comprising 15 multiple-choice questions covering three knowledge domains: NAPZA, mental health, and work motivation, with five questions allocated to each domain. The questionnaire was developed in alignment with the educational content to assess participants' knowledge of the topics addressed during the intervention. Each correct answer was assigned a score of 1, while each incorrect answer received a score of 0, yielding a total score ranging from 0 to 15. Total scores were subsequently classified into three categories: low (0–5), moderate (6–10), and high (11–15), to provide a descriptive overview of participants' knowledge levels (Bahadar et al., 2024). The same questionnaire was administered before and after the educational session to enable direct comparisons of changes in participants' knowledge scores (Gunawan & Mahardhika, 2026).

Data were analyzed using descriptive quantitative statistics, including frequency distributions and percentages of knowledge categories, mean scores, minimum and maximum scores, and changes in pretest and posttest scores. Differences in knowledge scores before and after the educational session were examined using the Wilcoxon signed-rank test (Gunawan & Mahardhika, 2026). Participants' questions documented during the interactive discussions conducted as part of the educational intervention adapted from Participatory Rural Appraisal (PRA) principles were presented descriptively according to three primary topics: NAPZA, mental health, and work motivation. These documented questions served as contextual information to complement the quantitative findings. The study findings were subsequently interpreted through a medical anthropological perspective, considering the relevance of observed knowledge changes within the sociocultural context of the workplace. This interpretation situated health-related knowledge in relation to risk perception, individual experiences, social interactions, and organizational values and norms as conceptual dimensions for understanding workplace health issues (Chang et al., 2020; Nastasi et al., 2015). Accordingly, the analysis focused on measurable changes in knowledge assessed before and immediately after the educational session, while risk perception and sociocultural dimensions were employed solely as interpretive frameworks rather than variables directly measured in the study.

3. Result and Discussion

3.1 Immediate Changes in Knowledge Scores Before and After the Educational Session

This study involved 36 employees of Company XYZ in Makassar, South Sulawesi, Indonesia, comprising 15 men and 21 women, with educational attainment ranging from senior high school to a bachelor's degree. Based on the pretest results, 9 participants (25%) were classified as having moderate knowledge, while 27 participants (75%) demonstrated high knowledge levels, with none falling into the low-knowledge category. Following the educational session addressing NAPZA, mental health, and work motivation, all participants (100%) were classified in the high-knowledge category. This shift in the distribution of knowledge levels indicates a measurable improvement in participants' knowledge immediately following the educational intervention. These findings can be considered in relation to the existing literature on workplace health education (Gayed et al., 2018; Roche et al., 2024).

Table 1. Results Before and After the Educational Intervention

Kategori	Pre-Test		Post-Test		*P-Value*
	Total	%	Total	%	
Low	0	0	0	0	
Medium	9	25	0	0	0.001
High	27	75	36	100	
Total	**36**	**100**	**36**	**100**	

The observed changes in knowledge categories were further reflected in an increase in participants' mean scores, from 77.78 at pretest to 94.58 at posttest, representing a mean increase of 16.80 points (Figure 3). The Wilcoxon signed-rank test revealed that 35 participants demonstrated increased scores (positive ranks), no participants exhibited decreased scores (negative ranks), and one participant had an unchanged score (tie). The analysis indicated a statistically significant difference between pretest and posttest knowledge scores *(p = 0.001)*. Although most participants were already classified in the high-knowledge category before the educational intervention, the increase in mean scores indicates that further measurable improvements in knowledge were observed immediately following the session.

The findings of this study demonstrate an improvement in employees' knowledge of NAPZA, mental health, and work motivation following participation in the health education session. Changes in pretest and posttest scores provide empirical evidence of measurable improvements in participants' knowledge of health-related information immediately after the intervention. These findings reflect a positive short-term learning response and highlight the relevance of the educational content in supporting the development of health-related knowledge within the workplace. In this context, improved knowledge may serve as an initial foundation for strengthening employees' understanding of the importance of preventing NAPZA misuse, maintaining mental health, and fostering work motivation. Furthermore, these findings provide a basis for developing sustained workplace health education initiatives aimed at promoting knowledge retention and encouraging the application of health-related knowledge in everyday occupational practices.

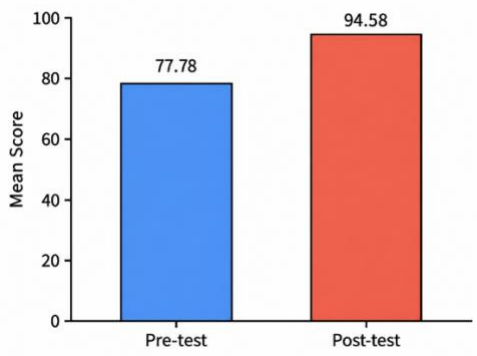


Figure 3. Diagram of Mean Scores Before and After the Educational Session

3.2 Interpretation of Knowledge Changes from a Medical Anthropological Perspective

The improvement in employees' knowledge following the educational session on NAPZA, mental health, and work motivation can be interpreted through a medical anthropological perspective, which situates health-related knowledge within individuals' social and cultural contexts (Oikawa et al., 2022; Pelto & Pelto, 1997). The findings demonstrate measurable changes in knowledge immediately following the educational session, although most participants were already classified as having high knowledge levels before the intervention. This suggests that changes in knowledge should be examined not only in terms of shifts between knowledge categories but also through improvements in individual participants' scores. From a medical anthropological perspective, changes in knowledge can be examined in relation to processes through which individuals understand and construct meanings around health, although improvements in knowledge do not necessarily indicate corresponding changes in individuals' interpretations and meanings of health (Helman, 1981; Kleinman, 1978).

Kleinman's concept of explanatory models suggests that individuals' understandings of health and illness are shaped by their lived experiences, beliefs, and sociocultural backgrounds (Kleinman, 1978; Lavdas et al., 2023). This concept provides a theoretical framework for situating employees' knowledge of NAPZA, mental health, and work motivation within the context of their everyday lives. The findings of this study demonstrate measurable improvements in participants' knowledge following the educational intervention; however, how such knowledge is interpreted and assigned meaning in relation to employees' personal experiences and social contexts represents a distinct dimension that extends beyond the measurement of knowledge scores. Accordingly, the concept of explanatory models helps distinguish quantitatively measurable knowledge acquisition from the processes of health-related meaning-making embedded in individuals' social lives.

In relation to risk perception, improvements in health-related knowledge should be distinguished from how individuals evaluate and respond to the risks they encounter. Risk-related knowledge refers to the ability to recognize information about potential hazards and their consequences, whereas risk perception involves subjective judgments regarding the likelihood and severity of a particular risk. Within the cultural theory of risk, Douglas and Wildavsky (1982) argue that how individuals and groups understand and prioritize risks is closely associated with cultural values and forms of social organization that shape their assessments of health-related hazards (Douglas & Wildavsky, 1982; Tansey & O'riordan, 1999). This perspective is particularly relevant to understanding NAPZA misuse in occupational settings, as knowledge of the potential harms associated with substance use does not necessarily correspond to individuals' perceptions of those risks. Therefore, the improvements in knowledge observed in this study can be

interpreted as changes in the cognitive dimension addressed by the educational intervention, but they do not provide direct evidence of changes in employees' risk perceptions.

Within occupational settings, a medical anthropological perspective also provides a conceptual foundation for examining knowledge of NAPZA, mental health, and work motivation in relation to the social dynamics of organizational life. The workplace constitutes a social environment in which individuals engage in occupational activities and interact with others, making social relationships and organizational contexts important dimensions in understanding employee health issues (Eakin & MacEachen, 1998; Mastroianni & Storberg-walker, 2014). Although a medical anthropological framework draws attention to cultural meanings and organizational relationships, the present study did not collect ethnographic observations or validated measures of organizational health culture. Therefore, the pretest–posttest findings cannot establish that cultural values, social relationships, or risk perceptions changed. These concepts instead offer directions for follow-up qualitative studies of how employees interpret and apply information in their workplace. These dimensions provide a conceptual basis for understanding the interrelationships among health-related knowledge, risk perception, and health practices in everyday working life. Accordingly, the findings of this study provide a foundation for further understanding the importance of social and organizational cultural contexts in supporting employees' health-related knowledge.

Overall, the medical anthropological interpretation situates improvements in employees' knowledge as a relevant finding for understanding health-related issues in occupational settings. The measurable changes in knowledge following the educational session indicate an increased understanding of information concerning NAPZA, mental health, and work motivation. In relation to risk perception, these findings highlight improvements in health-related knowledge, which constitutes one of the cognitive foundations for recognizing potential hazards and their health consequences. A medical anthropological perspective provides a conceptual framework for contextualizing these changes within everyday working life, taking into account the relevance of individual experiences, social interactions, and organizational values and norms in shaping understandings of health. Thus, the findings contribute empirical evidence of short-term changes in employees' knowledge while broadening the conceptual basis for interpreting health-related issues and risk perception within organizational environments.

3.3 Participants' Questions During the Educational Session

In addition to the knowledge assessments conducted through the pretest and posttest, questions raised during the educational session provided descriptive information regarding health-related issues discussed within the workplace context. The documented questions addressed three primary topics: the prevention and management of NAPZA misuse, mental health, and work motivation. Regarding NAPZA, participants inquired about preventive measures implemented by the company and the procedures followed by healthcare professionals at the company clinic in managing cases of substance misuse. One participant asked, *"What measures does the company implement to prevent NAPZA misuse in the workplace?"* This question indicates that organizational approaches to preventing and managing NAPZA misuse were among the issues raised during the educational session. From a risk perception perspective, this topic is relevant because it concerns the recognition of potential hazards associated with substance use and the implementation of preventive measures in occupational settings. However, the question itself does not provide direct evidence of how individual participants perceive or evaluate the severity or likelihood of these risks.

Regarding mental health, participants raised questions about the use of ChatGPT as an alternative platform for discussing personal concerns when individuals lack a space they perceive as safe for sharing their experiences. This question highlighted issues related to access to supportive communication channels and psychological support. Meanwhile, in the domain of work motivation, participants inquired about psychological approaches to managing employees who demonstrate suboptimal job performance despite receiving adequate financial compensation and having been given corrective feedback. These questions reflect discussions concerning alternative sources of psychological support and approaches to addressing performance-related challenges within occupational settings. However, the questions do not provide direct evidence of the personal experiences or psychological conditions of the participants who raised them.

From a medical anthropological perspective, these three categories of questions provide insights into the interconnections between health-related issues and the broader context of working life. Questions concerning NAPZA prevention, access to mental health support, and approaches to addressing work motivation challenges indicate that discussions during the educational session extended beyond general health information to encompass issues embedded within the organizational environment. In relation to risk perception, questions regarding NAPZA highlight topics that warrant further investigation to understand how employees recognize and evaluate health risks in occupational settings. Thus, participants' questions serve as contextual information that complements the interpretation of observed changes in knowledge, without being treated as direct evidence of changes in employees' risk perceptions, values, or behaviors.

Overall, the questions documented during the educational session provide insights into health-related issues that warrant consideration when delivering workplace health education programs. This contextual information complements the quantitative findings on improvements in knowledge following the educational intervention and provides a preliminary basis for identifying topics that merit further investigation, particularly the prevention of NAPZA misuse, access to mental health support, and approaches to addressing work motivation. Thus, the study not only presents measurable changes in employees' knowledge but also documents health-related and occupational concerns raised during the educational session.

4. Conclusion

The findings of this study demonstrate an improvement in employees' knowledge of NAPZA, mental health, and work motivation following participation in the workplace health education session at Company XYZ. Quantitatively, the mean knowledge score increased from 77.78 at pretest to 94.58 at posttest, representing an increase of 16.80 points. Among the 36 participants, 35 demonstrated increased scores, one participant had an unchanged score, and none exhibited a decrease. Furthermore, all participants achieved the high-knowledge category following the educational intervention. The Wilcoxon signed-rank test revealed a statistically significant difference between pretest and posttest knowledge scores *($p = 0.001$)*. These findings indicate measurable improvements in knowledge immediately following the educational session, particularly in the cognitive domains addressed by the educational content.

From a medical anthropological perspective, these changes in knowledge can be interpreted by recognizing that individuals' understandings of health are closely associated with their lived experiences and the sociocultural contexts in which they are situated. This perspective provides a conceptual framework for contextualizing knowledge of NAPZA, mental health, and work motivation within the organizational environment. In relation to risk perception, improvements in knowledge concerning health-related hazards and their consequences should

be distinguished from how individuals subjectively evaluate and respond to risks. Accordingly, the findings demonstrate measurable changes in knowledge, whereas risk perception, social experiences, and the culture of health are considered conceptually relevant dimensions that warrant further investigation.

The questions documented during the educational session provided additional contextual information regarding health-related and occupational issues raised during the discussions, particularly organizational strategies for preventing and managing NAPZA misuse, access to mental health support, and psychological approaches to addressing employee motivation and performance challenges. These questions complement the quantitative findings by highlighting topics that attracted participants' attention within the workplace context. However, this information does not provide direct evidence of changes in employees' lived experiences, beliefs, risk perceptions, or social norms.

Overall, this study provides empirical evidence of short-term changes in employees' knowledge following a workplace health education session. A medical anthropological perspective offers a conceptual foundation for interpreting the relevance of these findings within the sociocultural context of the organization, without implying that this perspective constitutes an independently evaluated intervention approach. The findings may serve as preliminary evidence to inform the development of sustained workplace health education initiatives that consider the relevance of educational content, supportive communication, and employees' health-related needs within occupational settings. Future research incorporating comparison groups, longer-term follow-up assessments, and systematic qualitative inquiry is needed to further investigate knowledge retention, risk perception, and the application of health-related knowledge in everyday workplace practices.

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