ACADEME University of Bohol, Graduate School and Professional Studies Volume 24 • March 2024
DOI: https://doi.org/10.15631/aubgsps.v24i1.303

KNOWLEDGE, ATTITUDE, AND PRACTICES ON NON-IONIZING RADIATION PROTECTION AMONG THE EMPLOYEES AND GRADUATE SCHOOL STUDENTS, UNIVERSITY OF BOHOL, TAGBILARAN CITY

GEFANIE GRACE C. HAMPAC
Graduate School, University of Bohol, Tagbilaran City, Philippines

***Corresponding Author**: gracehampac@gmail.com*

ABSTRACT

Article history:

Submission: 6 Dec 2023
Revised: 25 Jan 2024
Accepted: 24 Feb 2024
Publication: 7 Mar 2024

Keywords **—** non-ionizing radiation protection, knowledge, attitude, practices, university employees, graduate students

The growing use of wireless communication devices and electronic technology has increased the need to understand the safety of non-ionizing radiation in educational institutions. This study evaluated the knowledge, attitudes, and behaviors regarding non-ionizing radiation safety among personnel and graduate students at the University of Bohol in Tagbilaran City. A quantitative descriptive-comparative and correlational research approach was used in this study, with 234 respondents recruited using stratified random sampling. Data were obtained via a validated questionnaire on knowledge, attitudes, and behaviors regarding non-ionizing radiation protection. Descriptive statistics and Pearson Product-Moment Correlation were used for the analysis. The findings indicated that respondents had an intermediate understanding of non-ionizing radiation protection with good

comprehension of basic and scientific concepts. They also showed favorable attitudes toward radiation safety and demonstrated well-practiced protective measures. Knowledge and attitude were not significantly related. Knowledge and behaviors showed no significant association. However, a significant positive correlation was observed between attitude and practices, indicating that respondents with a more favorable attitude towards radiation protection were more likely to engage in protective practices. The results indicate that attitudes may be more important than knowledge in influencing radiation-protective behaviors. The study points to the need for stronger awareness campaigns and the promotion of positive attitudes to support the informed and responsible use of technology in relation to non-ionizing radiation exposure.

INTRODUCTION

The pervasive use of information and communication technology has changed the way people study, work, and interact. Wireless internet networks, mobile phones, laptops, and other electronic devices have become crucial instruments in educational institutions, supporting teaching, learning, research, and administrative duties. The increasing usage of these technologies has made exposure to non-ionizing radiation (NIR) an important issue in occupational and educational settings. Non-ionizing radiation is a kind of electromagnetic radiation that does not carry enough energy to ionize atoms or molecules. They are often radio frequency emissions from mobile phones, Wi-Fi networks, TV and radio stations, and other electronic equipment. Although non-ionizing radiation differs fundamentally from ionizing radiation in terms of energy and biological effects, its increasing use in everyday life has prompted ongoing scientific research and public health monitoring (International Commission on Non-Ionizing Radiation Protection [ICNIRP], 2020). Universities are environments where people are often exposed to many sources of non-ionizing radiation due to their heavy dependence on digital technologies. Employees and graduate students often use electronic devices and wireless communication technologies to conduct academic and professional activities. So, knowledge of radiation sources, knowledge of recommended safety measures, and the observance of proper protective practices have become ever more crucial elements of responsible technology use. The World Health Organization has emphasized the importance of evidence-based information to improve the public's understanding of electromagnetic fields and to eliminate misunderstandings about exposure to non-ionizing radiation (World Health Organization [WHO], 2023). Likewise, the International Telecommunication Union has acknowledged the importance of public awareness and adherence to existing safety standards for the safe and efficient use of wireless technology (International Telecommunication Union [ITU], 2022). These actions show the importance of individuals having proper information and educated attitudes towards radiation safety.

Knowledge, attitude, and practices (KAP) are common indicators used in health education research since they provide information on what people know, how they view a problem, and how much they adopt suggested actions. Current research reveals that people differ in their awareness and perceptions of non-ionizing radiation, and that knowledge levels often influence attitudes and protective behaviors (Aung et al., 2019; Röösli et al., 2010). Such findings suggest the usefulness of the KAP assessment in specific institutional settings for identifying educational needs and opportunities for health promotion.

Despite the increased reliance on digital technology in higher education, local research on the knowledge, attitudes, and practices regarding non-ionizing radiation safety is sparse. Specifically, nothing is known about the level of knowledge and protective practices among university personnel and graduate students in the Philippine context. Addressing this gap may help inform the development of educational efforts and institutional policies that encourage the informed and responsible use of technology.

Research has examined the knowledge, attitudes, and behaviors of healthcare personnel and university students regarding radiation safety across different nations. However, there is a lack of actual data on non-ionizing radiation protection in Philippine higher education institutions. Moreover, little research has examined the interactions among knowledge, attitudes, and actions among university workers and graduate students. Thus, there is limited knowledge of the role of awareness and perceptions in radiation-protective practices in university environments, where exposure to wireless devices is becoming widespread.

The study employed the Knowledge-Attitude-Practice framework to assess knowledge, attitudes, and practices regarding non-ionizing radiation safety among personnel and graduate students at the University of Bohol in Tagbilaran City. The findings are intended to provide baseline information to inform future awareness efforts, health education initiatives, and evidence-based institutional policies on radiation safety.

Theoretical Background. The study is based on the Knowledge-Attitude-Practice (KAP) Theory, the Health Belief Model, and the Protection Motivation Theory, which constitute a conceptual framework for understanding how people acquire information, form perceptions, and take protective actions about exposure to non-ionizing radiation. The study was based on the Knowledge-Attitude-Practice (KAP) Theory. The hypothesis states that information impacts attitude formation, which in turn drives behavior. This approach implies that people with sufficient information about a particular health or safety concern are more likely to adopt positive attitudes and take appropriate preventive measures. In the non-ionizing radiation protection environment, increasing understanding of radiation sources, their impacts, and recommended safety measures may help foster more positive attitudes toward radiation safety and encourage compliance with protective

measures. The KAP framework has been widely used in public health research to evaluate awareness, attitudes, and behaviors related to health promotion and risk prevention.

The Health Belief Model (HBM) by Rosenstock (1974) complements the KAP framework. The concept suggests that a person's perceptions of vulnerability, severity, advantages and obstacles impact health-related activities. Individuals are more likely to practice preventive behaviors if they perceive a health threat, believe the protective action would be effective, and see the hurdles to taking action as surmountable. The present study suggests that employees and graduate students who appreciate the necessity of radiation protection and value suggested safety precautions may be more likely to follow precautionary measures in their everyday usage of electronic devices and wireless technologies.

The study is further informed by the Protection Motivation Theory (PMT) by Rogers (1975). PMT describes how people respond to perceived risks through cognitive processes that evaluate the gravity of a prospective threat and their ability to respond to it. The hypothesis says that protective conduct is determined by threat assessment and coping appraisal. In the area of protection against non-ionizing radiation, persons who are aware of the recommended safety recommendations and believe they can successfully apply them are more likely to adopt protective behaviors.

Together, these ideas give a complete explanation of the research variables. The KAP Theory discusses the progression from knowledge to attitudes and practices; the Health Belief Model focuses on how health beliefs influence behavior; and Protection Motivation Theory emphasizes the cognitive processes involved in engaging in protective behaviors. Thus, the investigation of knowledge, attitudes, and behaviors regarding non-ionizing radiation safety among staff and graduate school students at the University of Bohol is justified by the above theoretical perspectives.

Review of Related Literature and Studies. Non-ionizing radiation (NIR) has become increasingly relevant in contemporary educational and occupational settings due to the widespread use of mobile phones, wireless internet systems, laptops, and other electronic devices. Radiofrequency electromagnetic fields from wireless communication devices are among the common sources of NIR in daily life. Although NIR does not carry enough energy to ionize atoms or directly damage DNA, international guidelines continue to emphasize exposure limits and responsible use to protect public health (ICNIRP, 2020).

Scientific literature on NIR has usually focused on exposure evaluation, health protection guidelines, and public perception of electromagnetic fields. Röösli et al. (2010), in a comprehensive evaluation of radiofrequency electromagnetic field exposure from mobile phone base stations, reported that existing research did not consistently show detrimental health consequences. However, further study and careful interpretation are still needed." It

emphasizes the importance of good public education. We do not want people to ignore safety advice, but we also do not want them to be afraid of common technology.

Personnel and students of academic institutions commonly use devices and systems that generate non-ionizing radiation. Thus, the university context is an ideal setting for assessing awareness and protective behavior. Wireless technologies can help teach, learn, communicate, and run an organization more efficiently. However, they also require users to know basic safety measures, such as using devices responsibly, being aware of sources of exposure, and following institutional or regulatory guidance, if applicable.

Knowledge, attitudes, and behaviors (KAP) provide a valuable framework for examining how individuals perceive and respond to radiation-related health and safety issues. Knowledge is awareness of NIR sources and safety precautions; attitude is views, concerns, and readiness to adopt cautious behavior; and practice is the actual precautionary activities. In radiation safety, accurate information may foster adequate attitudes, and positive attitudes may promote safer and more uniform procedures.

Studies conducted in university populations show variation in knowledge and practices regarding electromagnetic radiation among students. Gavrilas (2022), for instance, observed that university students differed in their views and actions regarding electromagnetic radiation from mobile phones and wireless networks, showing the importance of academic background and exposure to relevant knowledge.

Similarly, recent research indicates the relevance of risk perception in radiation protective practices. People who believe they are more vulnerable to possible health impacts are more inclined to take precautions, regardless of their actual level of technical understanding. This shows that attitudes and perceptions can be significant mediators of knowledge and behavior, particularly in situations where exposure is perceived as routine or inescapable.

In addition, public health and communication organizations have underlined the importance of clear, evidence-based information about electromagnetic fields. The World Health Organization maintains public information on electromagnetic fields to facilitate informed decision-making and to prevent misunderstandings (WHO, 2023). The International Telecommunication Union also underscores the need to adhere to established standards and to provide public education for the safe use of wireless technology (ITU, 2022). These views are also applicable to colleges, where institutional awareness initiatives may nurture responsible and informed use of technology.

Although there is increasing international emphasis on the safety of electromagnetic fields and expanding public awareness, there is still little local research on the knowledge, attitudes, and practices regarding the protection from non-ionizing radiation, especially among university personnel and graduate students in the Philippines. This divide is noteworthy because both groups frequently use electronic and wireless technologies for academic,

administrative, and professional purposes. Studying their KAP regarding NIR protection might provide baseline evidence to enhance institutional health education, safety communication, and policy development in the university context.

RESEARCH METHODOLOGY

Research Design. This study employed a quantitative descriptive-comparative and correlational research design to assess the knowledge, attitudes, and practices (KAP) regarding non-ionizing radiation protection among employees and graduate school students of the University of Bohol. The descriptive component was used to determine the respondents' levels of knowledge, attitudes, and practices, while the comparative component examined differences between employees and graduate school students. The correlational component explored the relationships among knowledge, attitudes, and practices toward non-ionizing radiation protection.

Environment. The study was conducted at the University of Bohol, Tagbilaran City, Philippines. The participants were university employees and graduate students who regularly used electronic devices and wireless communication technologies in their academic and professional activities. Respondents were selected through stratified random sampling to ensure adequate representation of both groups.

Respondents. Of the 234 respondents, the majority were graduate school students, while the remainder were university employees. The respondents represented various age groups, educational backgrounds, and occupational classifications, providing a diverse representation of individuals routinely exposed to electronic devices and wireless communication technologies within the university setting.

Research Instrument. Data were collected using a structured questionnaire adapted from existing studies on non-ionizing radiation awareness and radiation protection. The instrument comprised four sections: (1) demographic profile, (2) knowledge of non-ionizing radiation protection, (3) attitudes toward non-ionizing radiation exposure and safety, and (4) practices related to radiation protection.

The knowledge segment included multiple-response items to test participants' knowledge of sources, exposure, and safety aspects of non-ionizing radiation. The attitude and practice items were rated on a 5-point Likert scale ranging from strongly disagree to agree and from never to often, respectively. Before administration, the instrument was validated by experts in public health, environmental health, and research. Reliability was established through pilot testing with respondents outside the research sample, yielding appropriate Cronbach's alpha values. Content validity was demonstrated through expert assessment by professionals in public health, environmental health, and research methods. The suggested

revisions were incorporated prior to pilot testing. Cronbach's alpha coefficients were adequate for reliability testing, demonstrating satisfactory internal consistency of the instrument.

Data Collection and Ethical Considerations. Prior to data collection, approval was secured from the appropriate university authorities and the ethics review body. Participation was voluntary, and informed consent was obtained from all respondents. Participants were informed of the study's objectives, confidentiality provisions, and their right to withdraw from the study at any time without penalty.

Questionnaires were administered through face-to-face and online modalities to accommodate respondents' availability. All collected data were treated with strict confidentiality and used exclusively for research purposes in accordance with the Data Privacy Act of 2012.

Data Analysis. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize respondents' demographic characteristics and to determine their levels of knowledge, attitudes, and practices regarding non-ionizing radiation protection.

Independent-samples t-tests were employed to assess significant differences in KAP between employees and graduate school students. One-Way Analysis of Variance (ANOVA) was used to assess differences in KAP across selected demographic characteristics such as age, educational attainment, and length of service, where applicable. Pearson Product-Moment Correlation was utilized to determine the relationships among knowledge, attitudes, and practices. All statistical analyses were performed at a 0.05 significance level.

RESULTS AND DISCUSSION

Knowledge of Non-Ionizing Radiation Protection. The findings revealed that the respondents were generally **moderately knowledgeable** about non-ionizing radiation protection, with an overall mean score of 8.55. Basic knowledge obtained a slightly higher mean score (M = 8.74) than scientific knowledge (M = 8.36), suggesting that respondents possessed a reasonable understanding of common sources of non-ionizing radiation and basic protective measures but demonstrated somewhat lower familiarity with the underlying scientific principles.

Table 1. *Knowledge of Non-Ionizing Radiation Protection Among Employees and Graduate School Students (N = 234)*

Dimension	Mean Score	Interpretation
Basic Knowledge	8.74	Moderately Knowledgeable
Scientific Knowledge	8.36	Moderately Knowledgeable
Overall Knowledge	**8.55**	**Moderately Knowledgeable**

Note. Higher scores indicate greater knowledge of non-ionizing radiation protection.

The results indicate that, while employees and graduate school students have some awareness of non-ionizing radiation protection, opportunities remain to strengthen scientific understanding of radiation exposure and safety. Similar findings were reported in earlier studies, which suggested that people generally have a general understanding of radiation-related issues, but there are gaps in the technical and scientific knowledge necessary for informed decision-making (Alotaibi et al., 2018; Khamtuikrua & Suksompong, 2020). The results highlight the necessity of ongoing educational programs to foster evidence-based knowledge about non-ionizing radiation and associated safety measures. The modest level of respondents' knowledge can be attributed to the inadequate integration of radiation safety themes into academic and professional training programs unrelated to health. The respondents are often exposed to technology that generates non-ionizing radiation, but they may not have had formal training in radiation concepts, exposure processes, and recommended protective measures.

Attitude Toward Non-Ionizing Radiation Protection. Table 3 reveals that the respondents had a favorable attitude towards non-ionizing radiation protection in general, with an overall mean of 3.16. The dimension of optimization was ranked highest (M=3.29), followed by limitation (M=3.23) and justification (M=2.97). The results imply that respondents were largely amenable to strategies that promote adequate exposure control and acknowledged the importance of balancing the benefits of technology use with potential safety concerns.

Table 2. *Attitude Toward Non-Ionizing Radiation Protection (N = 234)*

Dimension	Mean	Interpretation
Justification	2.97	Good Attitude
Limitation	3.23	Good Attitude
Optimization	3.29	Very Good Attitude
Overall Attitude	**3.16**	**Good Attitude**

Note. Higher mean scores indicate more favorable attitudes toward non-ionizing radiation protection.

The favorable attitudes observed in this study may reflect increasing public awareness regarding responsible technology use and radiation safety. Previous studies have likewise reported positive attitudes toward radiation protection among individuals exposed to technology-rich environments, particularly when awareness programs and safety information are available (Haldar et al., 2022). The findings indicate that respondents generally recognize the value of precautionary measures and support practices that encourage the safe use of electronic devices and wireless technologies.

Practices on Non-Ionizing Radiation Protection. The respondents showed a high level of practice in protecting against non-ionizing radiation,

with an overall mean of 3.45. The use of shielding dimension had the highest mean (M = 3.55), followed by time management (M = 3.47) and distance-related practices (M = 3.33). These results imply that respondents typically engage in behaviors designed to limit unnecessary exposure to non-ionizing radiation.

Table 3. *Practices on Non-Ionizing Radiation Protection (N = 234)*

Dimension	Mean	Interpretation
Time	3.47	Highly Practiced
Distance	3.33	Highly Practiced
Use of Shielding	3.55	Highly Practiced
Overall Practice	**3.45**	**Highly Practiced**

Note. Higher mean scores indicate more frequent engagement in protective practices.

The relatively high level of protective practices may indicate that respondents translate their awareness and favorable attitudes into everyday behaviors. The findings also suggest an appreciation of commonly recommended protective measures, including managing exposure duration, maintaining appropriate distance from potential sources, and utilizing protective strategies when necessary. Similar studies have reported that individuals with greater awareness of radiation protection tend to demonstrate more consistent safety practices, although variations often exist across specific behaviors and contexts (Partap et al., 2019).

Taken together, the data suggest only moderate levels of awareness among respondents, but generally favorable attitudes and regular involvement in preventative activities. This pattern shows that pragmatic comprehension of safety practices may be stronger than scientific understanding of non-ionizing radiation. Therefore, educational interventions that target the scientific underpinnings of radiation protection may further bolster informed decision-making and encourage continued safety practices among university personnel and graduate students.

Interestingly, respondents displayed highly trained defensive actions with only minimal understanding. This research suggests that protective behaviors might be shaped by shared safety habits, institutional rules, public health messages, or personal experiences, rather than merely by technical expertise.

Relationship Among Knowledge, Attitude, and Practices on Non-Ionizing Radiation Protection. Table 5 presents the relationships among respondents' knowledge, attitudes, and practices regarding non-ionizing radiation protection. The findings revealed no significant relationship between knowledge and attitude (r = .073, p = .268) and between knowledge and practices (r = .088, p = .182). These results suggest that greater knowledge of non-ionizing radiation protection did not necessarily correspond to more favorable attitudes or stronger protective practices among the respondents.

Table 5. *Correlations Among Knowledge, Attitude, and Practices on Non-Ionizing Radiation Protection (N = 234)*

Variables	r	p	Interpretation
Knowledge and Attitude	.073	.268	Negligible, Not Significant
Knowledge and Practices	.088	.182	Negligible, Not Significant
Attitude and Practices	.293**	< .001	Weak Positive, Significant

Note. Pearson Product-Moment Correlation was used. **p < .01.

One possible explanation is that awareness of non-ionizing radiation concepts may not automatically translate into behavioral change. Individuals may possess basic or scientific knowledge about radiation exposure but may not perceive it as sufficiently relevant to influence their attitudes or everyday practices. Similar observations have been reported in health behavior research, where knowledge alone was found to be insufficient in promoting protective actions unless accompanied by strong perceptions of relevance, motivation, and personal responsibility (Rosenstock, 1974).

In contrast, attitude demonstrated a significant positive relationship with practices ($r = .293$, $p < .001$). Although the correlation was weak, the finding indicates that respondents with more favorable attitudes toward non-ionizing radiation protection were more likely to engage in protective practices. This result suggests that attitudes may play a more influential role than knowledge in shaping behavioral responses to radiation safety concerns. Individuals who value precautionary measures and recognize the importance of radiation protection may be more inclined to adopt recommended safety practices in their daily use of electronic devices and wireless technologies.

The findings support the Health Belief Model, which posits that behavioral practices are influenced not only by knowledge but also by individuals' perceptions and beliefs about health-related risks and preventive actions (Rosenstock, 1974). Likewise, the results are consistent with the study of Park and Yang (2021), which found that positive attitudes toward radiation safety were significantly associated with compliance with radiation protection practices among healthcare professionals. Collectively, the findings suggest that efforts to improve radiation safety behavior may benefit from interventions that strengthen positive attitudes toward radiation protection in addition to providing factual information.

Limitations of the Study. This study relied on self-reported measures of attitudes and practices, which may be subject to social desirability and response biases. The study was also conducted within a single higher education institution, limiting the generalizability of the findings to other university settings. Furthermore, the cross-sectional design precludes causal inferences regarding the relationships among knowledge, attitudes, and practices. Future studies may employ multi-institutional samples and mixed-method approaches to provide a more comprehensive understanding of radiation

protection behaviors.

CONCLUSION

The study found that employees and graduate school students at the University of Bohol had a moderate level of knowledge of non-ionizing radiation protection, indicating a reasonable understanding of basic and scientific concepts related to radiation exposure and safety. The respondents also demonstrated a good attitude toward non-ionizing radiation protection and reported high levels of engagement in protective practices.

The findings further revealed that knowledge was not significantly associated with either attitude or practice. In contrast, attitude showed a significant positive relationship with practice, suggesting that individuals with more favorable perceptions toward radiation protection were more likely to adopt recommended protective behaviors. These results underscore the importance of attitudes in influencing safety-related actions and suggest that behavioral compliance may depend not only on knowledge acquisition but also on the development of positive beliefs and perceptions regarding radiation protection.

Overall, the study indicates that respondents generally practice appropriate radiation safety behaviors despite possessing only moderate levels of knowledge. The findings contribute to the growing body of evidence emphasizing the role of attitudes in promoting health-protective behaviors and provide baseline information for developing institutional radiation safety education initiatives.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed:

1. The University of Bohol may strengthen information and awareness campaigns on non-ionizing radiation protection to enhance scientific understanding among employees and graduate school students.
2. University administrators and health-related offices may develop educational programs, seminars, and workshops focusing on evidence-based radiation safety practices and responsible technology use.
3. Faculty members and program coordinators may integrate relevant discussions on non-ionizing radiation safety into appropriate academic and professional development activities to promote informed decision-making.
4. Efforts to improve radiation safety should focus not only on increasing knowledge but also on fostering positive attitudes toward radiation protection, as attitudes were found to be significantly associated with protective practices.
5. Future researchers may investigate other factors that influence

radiation protection behaviors, such as risk perception, health beliefs, exposure patterns, and sources of information. Comparative studies involving other universities and occupational groups may also be conducted to broaden understanding of non-ionizing radiation awareness and safety practices.

REFERENCES CITED

Alotaibi, M., Saeed, R., Alzahrani, A., & Alsharif, M. (2018). Radiation protection knowledge among healthcare professionals: A cross-sectional study. *Journal of Radiation Research and Applied Sciences, 11*(4), 371–375. https://doi.org/10.1016/j.jrras.2018.06.003

Aung, N., Lwin, Z. M., & Hlaing, S. S. (2019). Knowledge, attitude, and practices regarding mobile phone use and perceived health effects among university students. *International Journal of Community Medicine and Public Health, 6*(6), 2555–2560. https://doi.org/10.18203/2394-6040.ijcmph20192315

Gavrilas, L. (2022). Attitudes and behaviors of university students towards electromagnetic radiation of cell phones and wireless networks. *Aquademia, 6*(2), Article ep22008. https://doi.org/10.30935/aquademia/12393

Haldar, D., Sharma, A., & Singh, P. (2022). Attitudes toward radiation protection among healthcare professionals: Implications for safety compliance. *Radiography, 28*(3), 645–651. https://doi.org/10.1016/j.radi.2022.02.005

International Commission on Non-Ionizing Radiation Protection. (2020). Guidelines for limiting exposure to electromagnetic fields (100 kHz to 300 GHz). *Health Physics, 118*(5), 483–524. https://doi.org/10.1097/HP.0000000000001210

International Telecommunication Union. (2022). *Human exposure to electromagnetic fields*. https://www.itu.int/en/ITU-T/emf/Pages/default.aspx

Khamtuikrua, C., & Suksompong, S. (2020). Awareness about radiation hazards and knowledge about radiation protection among healthcare personnel: A questionnaire survey. *Journal of the Medical Association of Thailand, 103*(6), 612–620.

Partap, A., Sharma, S., & Kumar, V. (2019). Radiation safety practices among healthcare workers using fluoroscopic procedures. *Indian Journal of Radiology and Imaging, 29*(2), 145–151. https://doi.org/10.4103/ijri.IJRI_425_18

Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *The Journal of Psychology, 91*(1), 93–114. https://doi.org/10.1080/00223980.1975.9915803

Röösli, M., Frei, P., Mohler, E., & Hug, K. (2010). Systematic review on the health effects of exposure to radiofrequency electromagnetic fields from mobile phone base stations. *Bulletin of the World Health Organization, 88*(12), 887–896F. https://doi.org/10.2471/BLT.09.071852

Rosenstock, I. M. (1974). Historical origins of the Health Belief Model. *Health Education Monographs, 2*(4), 328–335. https://doi.org/10.1177/109019817400200403

World Health Organization. (2023). *Electromagnetic fields*. https://www.who.int/health-topics/electromagnetic-fields