IJNRD.ORG ISSN : 2456-4184
INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG
An International Open Access, Peer-reviewed, Refereed Journal

"HEALTH LITERACY AND HEALTH INFORMATION SEEKING BEHAVIOUR AMONG UNIVERSITY STUDENTS"

Submitted by:

Supervised by:

Tracy Nana Adjoa Kwofie

Gopal

(Assistant Professor, UCHS)

UTTARANCHAL COLLEGE OF HEALTH SCIENCES
UTTARANCHAL UNIVERSITY, DEHRADUN, UTTARAKHAND

ABSTRACT

This dissertation investigates the relationship between health literacy and health information seeking behaviour among Uttaranchal College of Health Sciences Students in India. The study aims to examine the impact of health literacy on the respondents' ability and willingness to seek health information. The research questions and hypotheses are presented, and the literature review highlights the theoretical and conceptual frameworks that inform the study. The study employs a quantitative approach, using psychometric inventories to determine the level of health information seeking behaviour and the degree of health literacy among the respondents. The data was collected from 217 undergraduate and master's students, with a high number of respondents being undergraduate students. The data was analysed using the Statistical Package for Social Sciences (SPSS) version 25. The results of the study indicate that there is a significant impact of health literacy on health information seeking behaviour and that health literacy and health information seeking behaviour are not dependent on age. There is a statistically significant

relationship between sex (male or female) and health literacy, but not health information seeking behaviour in this sample of respondents. The results also indicated that having a close family member in the health profession or not does not impact an individual's health literacy and health information seeking behaviour, but there is a statistically significant relationship between the program of study, health literacy and health information seeking behaviour. The study recommends that future research should tailor their research towards students below university education, as health and health behaviour should be taught to adolescents. This will help them understand their health as they grow and reduce the burden health issues place on the healthcare industry and society.

CHAPTER I

INTRODUCTION

1.1 Background

One way to fully know about one's health, whether physical, mental, or about all aspects and concepts of health, is to first understand health. The ideology of understanding and effectively using health is what health literacy is. Being able to understand health information is what experts term health literacy [1].

Health literacy can be defined as the ability to access, understand, appraise, and use information and services to promote and maintain good health and well-being [2] (Larsen et al., 2022). WHO's definition of health literacy emphasizes the complex nature of health literacy, not just mere reading and comprehension of health texts [3]. Finding reliable health websites or scheduling an appointment with a professional can be part of information acquisition. Appreciating knowledge requires critical thinking skills to evaluate the quality and usefulness of health advice, thereby separating between evidence-based recommendations and erroneous claims [4]. Using health knowledge effectively means applying it to direct decisions on lifestyle choices, course of treatment, and preventative care [3]. The personal knowledge and abilities acquired across everyday activities, societal interactions, and generations—that is health literacy. Imagine a family whose general level of health literacy comes from an intergenerational flow of knowledge on conventional remedies and health practices. [4] Regular activities like reading food labels or decoding prescription directions help one progressively acquire individual health competencies. Among the several skills that define health literacy are those related to reading and understanding medical information, negotiating healthcare facilities, and making well-informed health decisions. Understanding medicine labels, informed consent forms, and health education pamphlets [7] requires a strong grasp of reading comprehension. Navigating healthcare systems calls for knowledge of insurance coverage, appropriate healthcare provider search, and medical form completion. Making wise judgements could mean appreciating the need of following prescription schedules, balancing the hazards and benefits of several treatment approaches, or selecting sensible lifestyle choices supported by accurate data. A person with high health literacy would understand the data on a new medication, have conversations with their

doctor about possible side effects, and follow the advised dosing schedule. On the other hand, a person with low health literacy could find it difficult to understand prescription directions, which would lead to drug mistakes and adverse effects [8]. Since those with higher health literacy are more skilled in controlling their health and getting appropriate treatment, it is a necessary component in promoting health justice and lowering health inequities [9]. The development of health literacy, a steady flow moulded by education, personal experience, and cultural impact [3].

People's ability to effectively manage their health and negotiate healthcare systems depends on their degree of health literacy; but many people still have poor levels of this, which leads to negative health effects and escalating current health inequalities. Crucially in helping individuals to effectively take control their health and negotiate complex healthcare systems is health literacy [11], defined as the capacity to obtain, process, and absorb fundamental health information and services necessary for making informed health decisions [11]. This multifarious ability covers the ability to read and understand health information, critically analyse health-related content, connect effectively with healthcare practitioners, and make informed decisions regarding personal health and well-being [4] [5].

Despite its great importance, many people still suffer with poor knowledge of health issues. This general issue affects people from many demographic origins and across social boundaries. Lack of health literacy has wide-ranging effects and can show up in many different ways that finally lead to negative health results and aggravation of already existing inequality.

Medical directions, pharmaceutical labels, and health-education materials can all be confusing for those with little health literacy [6]. A patient with limited health literacy, for example, may misunderstand "takes two tablets twice daily" on a drug label and either overdose or underdose. Homogeneously, people could not understand the value of preventative screenings or follow-up visits described in intricate brochures. From this lack of understanding, medication errors, missed visits, and poor self-care practices can all follow [7]. Since patients fail to effectively control their conditions at home, low health literacy and growing hospital readmission rates have been found to be closely connected. Moreover, these people could find it challenging to let clinicians know about their symptoms and concerns, which would lead to delayed treatment or misdiagnoses. They could feel guilty to ask clarifying questions or find it challenging to describe the kind, degree, or length of their suffering [16]. This communication barrier can make it challenging for the doctor to objectively assess their circumstances and offer the best line of action. The National Assessment of Adult Literacy (NAAL) of the United States of America [17] revealed a considerable proportion of the adult population had either below basic or basic health literacy skills, therefore underlining the overall extent of this problem and its possible impact on public health outcomes [8]. Improving patient outcomes and lowering healthcare inequality thus depend on addressing health literacy [3].

Low health literacy burdens the healthcare system significantly and affects not only personal health outcomes. Those with below average health literateness may need repeated hospital stays, ER visits, and

extended recoveries. This more use of healthcare services strains the system as well as helps to explain the growing healthcare expenses.

Furthermore of great relevance is the relationship between health literacy and health inequalities. Low health literacy disproportionately affects marginalized groups like racial minorities, ethnic minorities, low-income populations, people with inadequate English proficiency, and those with low economic level. This discrepancy accentuates already existing health inequalities, therefore creating a loop of poor health outcomes and limited access to high-quality healthcare [4].

Dealing with low health literacy calls for a multimodal strategy including community organizations, legislators, healthcare providers, and teachers [5]. Efforts to enhance health education, streamline medical communication, and provide culturally sensitive health products are crucial initial steps towards increasing health literacy levels across diverse groups. For example, instead of using medical jargon, healthcare providers can use plain language approaches and visual aids to better explain medical conditions and treatment alternatives. Patients who make their treatment plans obvious are more likely to stick to them, according to research [12]. Funding initiatives that promote health education in local communities and educational institutions is one-way policymakers may support efforts to improve health literacy. For example, the ACA promotes patient-centred communication practices and stresses the necessity of health literacy. The ability to critically analyse health information acquired online is just one example of how educators play an essential role in preparing students to become proficient consumers of the health system. As an example, community groups should host health literacy courses and make sure people have access to credible health materials in formats that are easy for them to use, such as audio and video [13]. Furthermore, culturally sensitive health materials are vital because health beliefs and practices vary across divergent cultural groups. Tailoring health information to specific cultural contexts can improve its relevance and effectiveness. Ultimately, a collaborative and comprehensive strategy is required to tackle complex issues of below average health literacy, promoting better health outcomes for all [6].

1.2 Problem statement

Personal and generally, the ability to effectively absorb, evaluate, and utilise health knowledge for informed decision-making is becoming more and more critical. These cover skills include negotiating complex medical systems, understanding health statistics in news reports, and deciphering medication labels. An individual with robust health literacy may discern the benefits and cons of vaccination; conversely, a person with limited health literacy may be easily swayed by misinformation, affecting their health information-seeking behaviour. While many see university students as intelligent, recent research reveals significant disparities in their health literacy, which affects their behaviour and health outcomes. These gaps may manifest as difficulties in interpreting medical test results or comprehending health insurance coverage. A 2021 survey indicated that about 40% of university students were unable to

accurately define basic health insurance terms such as "deductible" or "co-pay," leading to poor healthcare decisions and postponed treatment due to financial apprehensions [15] [16]. Moreover, the capacity to critically assess health information available online is often deficient [27]. The prevalence of disinformation on social media and untrustworthy health websites may hinder students' ability to differentiate credible sources from those advocating unverified or potentially hazardous treatments [17]. This is compounded by the fact that numerous university health courses emphasise academic knowledge over adequately addressing practical health literacy skills [18]. Inadequate health literacy among university students significantly impacts the increasing prevalence of sexually transmitted infections (STIs) due to misconceptions regarding safe sex practices, ineffective management of chronic conditions such as asthma or diabetes, and a general reluctance to pursue preventive care [19]. Enhancing the welfare of this at-risk population relies on addressing these deficiencies through targeted health education initiatives and improved access to reliable health information. University students, typically aged 17 to 25 (and longer for postgraduate degrees), are at a crucial juncture for managing their health independently. This phase typically includes making autonomous choices regarding nutrition, physical activity, reproductive health, and substance consumption, all of which necessitate a specific degree of health literacy. Nonetheless, their ability to make educated health decisions is influenced not only by education but also by gender and field of study [20]. In contrast to individuals in the medical professions, students in paramedical domains may possess insufficient foundational health knowledge. For instance, whereas a nursing student is familiar with fundamental concepts of nutrition and sickness prevention, a health management major may lack this knowledge [18]. Moreover, disparities in gender regarding health information-seeking behaviours and communication styles may affect students' perceptions and responses to health information [21]. Research indicates that females typically seek health information more frequently than males and are more inclined to address health concerns with healthcare providers [22].

Systemic barriers restrict access to high-quality health education and services in numerous low- and middle-income countries, consequently exacerbating challenges such as misinformation, stigma, and insufficient university health promotion [23]. Potential difficulties include inadequate health education programs in schools, limited access to healthcare facilities, and cultural beliefs that inhibit open discussions about health issues. In many cultures, stigma surrounding the pursuit of mental health services may hinder students from obtaining necessary support [24]. Consequently, insufficient health literacy may result in inappropriate illness management, adverse mental health outcomes, reduced engagement in preventative care, and heightened vulnerability to chronic diseases and risky behaviours. This may present as inadequate compliance with treatment protocols, heightened anxiety and sadness, failure to obtain vaccinations, and elevated prevalence of sexually transmitted infections [25]. Although a crucial demographic for prompt intervention, there is less research about health literacy levels among university students when assessed by age, gender, and field of study (Kwon & Kwon, 2025). While several studies have examined health literacy among certain student populations, such as nursing students, a more comprehensive investigation that considers the intersection of these demographic characteristics is

essential (Ozen et al., 2019). Creating effective, targeted therapies that promote equity and facilitate informed health choices relies on an understanding of these disparities. An intervention for female humanities students would focus on promoting critical evaluation of health information sources, whereas a health literacy intervention for male engineering students would emphasise the delivery of essential health information in a clear and concise way [29]. This study aims to evaluate health literacy rates of university students across several academic disciplines (e.g., medical and paramedical), age demographics, and gender (male or female). Enhance communication between healthcare providers and students through targeted health education programs, such as seminars on navigating the healthcare system and online modules elucidating common medical terminology [37]. Inform providers about the specific health literacy challenges encountered by diverse student populations and foster a more health-literate campus environment via initiatives like tailored health information campaigns and the incorporation of health literacy principles into university curricula.

1.3 Purpose of the study

Most studies concentrate on how health literacy might help to reduce psychological problems including stress resulting from scholastic obligations, financial worries, and adjusting to new life events [7]. Examined to find their impact on students' health literacy levels and health information seeking behaviour, several researchers focused on determinants of health literacy and health information seeking behaviour focusing elements including age, gender, socioeconomic background, and parental education. Other researchers assess the efficacy of interventions, such as informative programs, in improving health literacy and promoting healthier behaviours [8] or the association between health-promoting environments and health literacy, so matching with initiatives like the Okanagan Charter, so enhancing students' well-being.

This study focusses on the interaction of age, sex, and health literacy among university students—that is, the relationship with relative health good and health literacy. Because of their vulnerability to health hazards including increased susceptibility to mental illnesses like anxiety and depression exacerbated by academic pressures, and poor lifestyle choices including inadequate nutrition and lack of bodily activity, all of which can greatly affect their well-being and academic performance, university students represent the focus. The transition to university ordinarily involves navigating new environments and responsibilities, making students a peculiarly susceptible population. Furthermore, there are significant long-term advantages of enhancing their health literacy. In some instances, students of higher health literateness more than likely engage in health preventative behaviours. They regard informed choices about their healthcare, effectively managing long-lasting conditions if they arise. These initiatives aim to foster more active lives by means of regular exercise, healthy meals, and moderate alcohol usage, so enhancing both academic and personal achievement. Studies show that student well-being and academic performance have a direct relationship; more active students show better general academic performance, concentration, and attendance. Age, sex, and having a relative who is a health professional represent the independent variables; health literacy represents the dependent variable. Unambiguously, we hypothesize

that older students may possess higher health literacy due to increased life experience; females may exhibit diverse levels of health literacy compared to males due to varying health-seeking behaviours, and students with relatives in healthcare professions may gain more essential firsthand information and resources in health, leading to higher health literacy scores. The study will utilize validated health literacy and health information seeking behaviour assessment tools to measure the dependent variable and statistical analyses to determine the strength and significance of the impact of the independent on the dependent variables.

1.4 Objective

- To determine whether or not health literacy predicts health information seeking behaviour.
- To study the relationship between the age, sex (male or female) and health literacy and health information seeking behaviour
- To determine whether or not having a close family member in the health profession has an impact on health literacy and health information seeking behaviour.
- To assess whether field of study influences health literacy and health information seeking behaviour.

1.5 Research Questions

- Is there a relationship between health literacy and health information seeking behaviour?
- Is there a significant difference in health literacy levels between male and female students?
- Is there a significant difference in health information seeking behaviour between male and female students?
- Is age related in any way to variations in university students' health literacy and health information seeking behaviour?
- Does field of study have an impact on the health literacy and health information seeking behaviour of the health sciences student?

1.6 Hypotheses

1. There is a statistically significant relationship between health literacy and health information seeking behaviour.
2. There is a statistically significant relationship between age groups in relation to health literacy.
3. There is a statistically significant relationship between age groups in relation to health information seeking behaviour.
4. There is a statistically significant relationship between sex (female and male) in relation to health literacy.

5. There is a statistically significant relationship between sex (female and male) in relation to health information seeking behaviour.
6. There is a statistically significant relationship between having a close family member who is a health professional and health literacy.
7. There is a statistically significant relationship between having a close family member who is a health professional and health information seeking behaviour.
8. There is statistically significant relationship between program of study and health literacy.
9. There is statistically significant relationship between program of study and health information seeking behaviour. 1.7 Significance of the Study

Health literacy occupies a crucial role in individuals' ability to make informed health decisions, manage illnesses, and navigate healthcare systems effectively. Promoting lifetime well-being among college students, who are in a formative stage of building long-term health behaviours, requires evaluating and enhancing health literacy [28].

For various reasons, this study is important:

1. **Public Health Promotion**: Emphasizing the present level of health literacy among young adults between the ages of 18 and 30, this population is vitally important for disease prevention and public health campaigns (Bayode, n.d.).

2. **Targeted Interventions**: By examining health literacy in relation to sex (male and female students) and fields of study (e.g., medical vs. paramedical disciplines), the findings will help identify groups at more considerable risk of inadequate health literacy.

3. **Academic Contribution**: The study adds to the substantial body of literature on health literacy, especially within low- and middle-income contexts where research on this topic is still emerging (Knight, 2011).

4. **Policy and Program Development**: Insights from the study can guide university health services, student affairs departments, and public health practitioners in creating customized programs to fill in knowledge and practice gaps.

5. **Empowerment and Equity**: Knowing differences in health literacy helps one to create fair pedagogical plans and health campaigns to empower every student, regardless of their academic background or gender, by means of equitable approaches.

1.8 Limitations of the Study

Although this study is meticulously planned, numerous constraints might compromise its generalizability and scope:

1. **Self-Reported Data**: Using questionnaires could cause social desirability or recollection bias, so influencing the response accuracy.

2. **Cross-Sectional Design:** The study is not longitudinal hence it cannot establish causality between variables like field of study and degrees of health literacy.
3. **Sample Size and Location**: The study might be confined to students from one or a few colleges, thereby not reflecting all university students in the nation or region.
4. **Language Obstacles:** Should the instrument be improperly translated or culturally modified, non-native speakers' understanding may suffer.
5. **Online Survey Constraints**: Technical problems or lack of internet access may hinder participation from some students should the survey be performed online.

1.9 Study Delimitations

Delimitations are the deliberately set limits by the researcher to concentrate the research:

- Population Scope: The study is limited to undergraduate university students aged 18–30 years, excluding postgraduate students and students outside this age group.
- Academic Focus: Included to compare across disciplines only full-time students from particular faculties (e.g., health sciences, social sciences, business, engineering) are.
- Geographic Area: The study is conducted not nationally but rather within a few chosen universities in a given city or region.
- Rather of several instruments, a standardised, validated health literacy questionnaire—such as HLS-EU-Q or Newest Vital Sign—will be used to gauge literacy levels.
- Data collecting is limited to a given academic semester without any follow-up tests throughout time.

1.10 Definitions of terms

The following key terms describe clarity as applied in this work:

1. **Health literacy**: the degree to which people can access, comprehend, assess, and apply health knowledge to make suitable health decisions and engage in appropriate physical activity.
2. **Health information seeking behaviour:** the willingness to seek out healthcare services and interventions.
3. **University Students**: People registered in a tertiary university under a known undergraduate curriculum.
4. **Field of Study**: The academic discipline—such as medicine, engineering, arts—that a student falls into.
5. **Sex**: Participants fall biologically either male or female.
6. **Vulnerable population**: Groups whose socioeconomic level, education, or access to services increases a more significant risk of poor health outcomes.

7. **Information Asymmetry**: A situation in healthcare where one party (e.g., provider) has more or better information than the other (e.g., patient), causing potential imbalances in decision-making.

1.11 Organization of the Study

This study is ordered into five chapters. Chapter one introduces the study, encompassing the background, statement of the problem, purpose, objectives, research questions, significance, delimitation and limitation, definition of terms and overall organization. The background part sets the context and clarifies the current circumstances that calls for the research. For instance, if the study looks at how social media affects student academic performance, the background can go into first worries about its possible consequences and the growing frequency of social media use among students. Often presented as a knowledge gap or a troubling trend, the statement of the problem precisely identifies the particular issue the research attempts to solve. The general goal of the research then is stated, while the objectives divide the aim into discrete, quantifiable targets. Research questions direct the study and are the interrogative versions of the objectives. Emphasizing its possible contributions to theory, practice, or policy, the significance part supports the relevance of the study. Delimitation specifies what elements are included and excluded, therefore defining the extent of the research (e.g., emphasizing a certain age group or geographical area). Limitation notes possible study flaws like data collecting techniques or sample size, so acknowledging their possible limits. Clear, succinct definitions of important ideas applied throughout the research help to guarantee a shared knowledge by means of the definition of words. At last, the whole book offers the reader a route map by delineating the framework and contents of every chapter.

Chapter two reviews pertinent linked papers, together with the theoretical framework, conceptual framework, and theoretical background. By means of accepted theories to explain the interactions between variables, the theoretical framework offers a prism through which to view the research results. Specific to the study, the conceptual framework is a visual or narrative depiction of the main ideas and their interactions. This frequently shows up as a diagram showing the expected links between dependent and independent variables. Relevant papers are examined closely to find gaps in the literature, current understanding, and other researchers' methodologies applied. This part proves the researcher's awareness of the corpus of current knowledge and supports the necessity of the present investigation. Reviewing research on online learning, for instance, may expose contradicting results about student involvement, which would inspire a new study to investigate certain elements affecting engagement in online environments.

Chapters three go into great length on the methods used, including the research design, population, sample and sampling strategy, instrumentation, reliability and data analysis techniques. This chapter is very important since it offers a clear, reproducible narrative of the research method, therefore enabling people who reads to evaluate the validity and reliability of the study results. It covers research design—that is, whether the study was conducted using a qualitative, case study, ethnographic, or quantitative (e.g., experimental, correlational) approach. In a correlational design, for instance, the section on methodology

might describe how variables were assessed and the statistical methods—such as Pearson's r—used to evaluate their correlations. Should a chosen experimental design, the chapter would go over the independent and dependent variables, control groups, and random assignment techniques. Population, defining the people to which the results of the research is intended to generalize, and sample and sampling technique, so clarifying how participants were chosen from the population as well as the size of the sample, chapter on methodology If examining student performance in mathematics, for example, the population could be all high school students in a certain state whereas the sample might be a randomly chosen set of students from multiple colleges inside that state. The sampling method would then go into great depth on the selection of those institutions and pupils. Moreover, the section on the technique describes the instruments—such as questionnaires, interviews, standardized tests—including information on their validity and reliability. Reliability, specifically, is addressed, outlining the consistency and stability of the measurement instruments. This might involve reporting Cronbach's alpha for a questionnaire or inter-rater reliability for observational data. Finally, the chapter explains data analysis procedures, specifying the statistical or qualitative techniques used to analyze the collected data. For quantitative studies, this could include descriptive statistics (e.g., means, standard deviations) and inferential statistics (e.g., t-tests, ANOVA, regression analysis). For qualitative studies, this might involve thematic analysis, discourse analysis, or grounded theory. Chapter four will give statistics and discuss findings and results. This chapter will impartially present the collected data, frequently use tables, figures, and descriptive statistics to encapsulate the principal findings. The results section will subsequently analyse these findings in respect to the study questions or hypotheses. Chapter five ultimately provides an overview of the investigation, the conclusions drawn from it, and recommendations based on the findings. The summary will offer a succinct account of the research method, whereas the conclusion will infer from the findings and examine their ramifications. The suggestions section will propose directions for further research or practical applications of the study's results, possibly identifying the study's weaknesses and recommending methods to mitigate them in subsequent research.

CHAPTER II

LITERATURE REVIEW

2.1 Theoretical Framework

The convergence of health literacy and health information-seeking behaviour has garnered [40] significant attention from researchers over the years, especially in the fields of public health and psychology [40]. A multitude of studies has examined the correlation between health literacy and health information-seeking behaviour, yielding diverse outcomes.

2.1.1 Social Cognitive Theory.

This paradigm, developed by Albert Bandura, places an emphasis on the role of individual agency and observational learning in making health-related decisions. Individual behaviour is a product of the interplay between one's environment, one's personality, and one's actions, according to the triad of reciprocal determinism in social cognitive theory. Individual cognitive capacity is one component of the person factor; one's social and physical environment are other components; and one's behaviour is the third component. For example, a person's views and cognitive abilities can be influenced by their behaviours and the structural components of their environment, according to SCT. [9] [10]. People are always shaped by their social surroundings; they learn health behaviours by seeing others, by personal experience, and by social interactions. They are not living in a vacuum. One of the most important elements is self-efficacy, in which a person's healthcare involvement is much influenced by their confidence in handling personal medical records [11]. This theory places an emphasis on the role of observational learning, self-efficacy and social influence in shaping behaviours. It suggests that people learn by watching others and that their confidence in their ability to take action plays a crucial role in health literacy and health information seeking behaviour [43]. An example is that people are more likely to adopt health behaviours such as exercise and a healthy diet when their friends or family do the same and reap positive results [43].

Both social cognitive behaviour and the health belief model focus heavily on self-efficacy, which means if individuals believe they can take action, they are more likely to do so. But the health belief model is more concerned with how people perceive susceptibility and severity of health risks. Individuals with high self-efficacy tend to seek out health information more actively and apply it to their behaviour. Some confidence in their health will use digital health tools, read articles and adopt preventive measures [8].

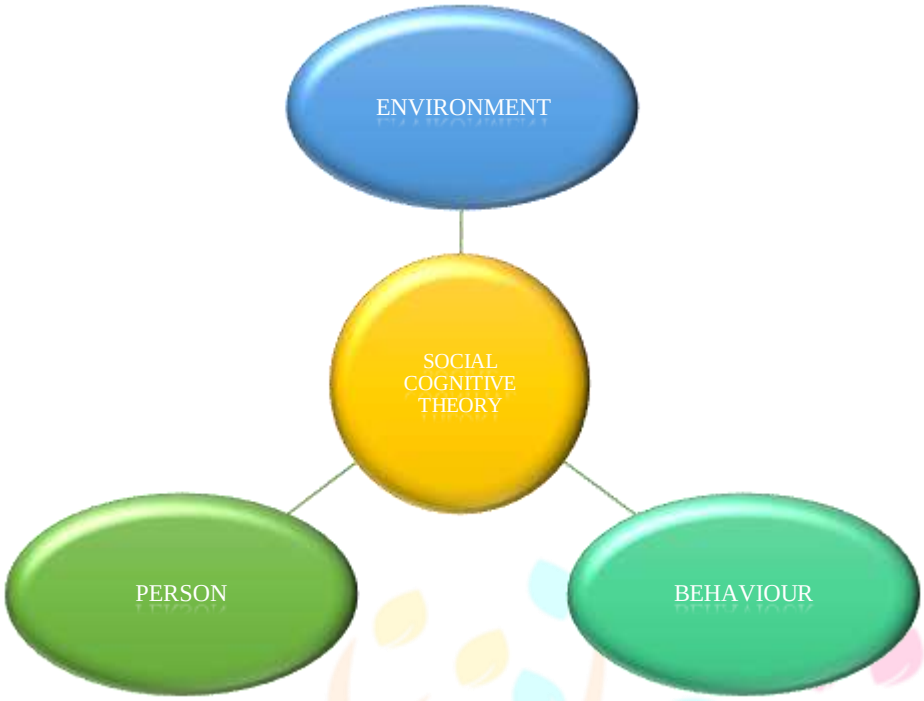


Figure 1 Social Cognitive Theory

2.1.2 The Health Belief Model

The Health Belief Model provides still more understanding of the psychological processes behind behaviour aimed at health. This model investigates how people view health hazards, assessing their sensitivity to possible diseases and the expected degree of threat these hazards represent [12]. Crucially, it looks at the fine equilibrium between the supposed advantages of preventative measures and the obstacles to healthcare availability. Motivation turns into a major factor that emphasises the intricate cognitive mechanisms guiding choices related to health [13]. This model highlights the factors that influence health behaviour, such as perceived susceptibility, perceived severity, perceived benefits and perceived barriers [5]. These constructs of the health belief model explain how the belief an individual has on the likelihood of getting a disease, how dangerous the disease is, the benefits that comes from taking action towards prevention and cure of the disease and whether or not there are obstacles to changing their actions. The other components, self-efficacy which explains the believe individuals have on whether they are able practice health behaviours and cues to action, outside influence that encourages them to take action towards positive health behaviours. For instance, if someone believes that they are at a risk for heart disease and sees the benefit of a healthy diet, they are more likely to seek information on nutrition and lifestyle changes [14].

Health belief model suggests that perceived susceptibility, severity and benefit influence health decisions whiles digital health literacy model impacts whether people trust and evaluate digital health information

effectively. If an individual believes they are at risk (HBM), they might actively seek health information (DHLM) and critically assess its credibility before acting.

Figure 2 The Health Belief Model

2.1.3 The Digital Health Literacy Model

Digital Health Literacy Model has become a very important theoretical tool in the modern digital age. The technology aspects of health information access, assessment, and use are covered by this structure. This model focuses on people's ability to find, understand, evaluate and apply health information from digital sources. Being it social media, websites, blogs, online books or webinars. It looks at how people negotiate difficult digital healthcare systems, evaluate online health information, and pick technology skills required for contemporary healthcare involvement [15]. It considers factors such:

- Access to technology
- Ability to critically assess online health information
- Skills to navigate digital health platforms
- Trust in digital health resources

Individuals with high digital health literacy are more likely to seek credible health information online, engage with telemedicine, use apps for health tracking.

Social cognitive theory explains that individuals learn through social influence, including role models and communities. Digital health literacy model highlights how people engage with health information online, including apps, websites and social media. When a person sees others successfully managing their health via social interactions and online channels and communities, this may increase their health literacy by researching and engaging with health information digitally [8].

Figure 3 The Digital Health Literacy Model

An ecological perspective helps us to grasp health literacy as well as health-seeking as a multi-level concept even further. This viewpoint recognises the complex interplay of human talents, interpersonal relationships, institutional structures, and more general society settings, therefore transcending individual-centric theories [16]. Thus, health literacy and health seeking behaviour is seen as a dynamic system shaped by policy contexts, cultural frameworks, and economic conditions [17].

The Cultural Competency Framework

In the fight against health-seeking behaviour theories that assume everyone should do it, this is an additional critical piece. In it, we see that different people see health through different cultural, social,

and historical lenses, and that these differences in turn shape health knowledge [18], [19]. This concept questions conventional medical wisdom that fails to adequately account for diverse perspectives on health, with a particular focus on the significance of healthcare communication that is sensitive to other cultures [20].

From these theoretical vantage points, health literacy and health-seeking behaviour take on new dimensions and become dynamic processes. Personal knowledge, social status, cultural background, and technological developments influence these frameworks, which are not fixed notions but are in a constant state of flux [21]. A broader perspective is necessary for modern research. Global health gaps, healthcare data complexity, and rapidly evolving technology impacting medical communication are all challenges that researchers must overcome [22]. Beyond conventional, linear models of health decision-making, complex, contextualised knowledge is required to address the intersectionality of health experiences. There are major real-world ramifications. Doctors can better tailor treatments to individual patients, develop communication methods that take cultural norms into account, and identify the many ways in which individuals interact with healthcare institutions if they are familiar with these theoretical frameworks [23]. The aim is not to enforce uniformity but rather to build healthcare systems that are responsive and adaptable, respecting individual agency and cultural variation.

2.2 Conceptual Framework

This study's premise is that people are more likely to seek out health information if they are health literate, or that people are less likely to do the opposite. Social cognitive theory, the health belief model, and the digital health literacy model are just a few of the ideas that the framework uses to explore this notion. Health literacy may influence how people seek out health information in various ways, as these theories show. Social cognitive theory encourages learning from others and developing confidence in taking action. Health belief model helps assess risks, benefits and barriers to taking action. Finally digital health literacy enables access to credible health information. Together they provide a comprehensive framework for understanding hoe people seek, understand and act on health information. Healthcare industries may perpetuate information asymmetry by promoting literacy dominance of health care professionals over individuals. The framework also considers ecological perspectives and cultural competence framework that may moderate the relationship between health literacy and health information seeking behaviour, such as institutional structures, economic factors and culturally sensitive healthcare services. These factors may affect the extent to which health literacy influence health information seeking behaviour. Based on this framework, the research will test the hypothesis that health literacy is positively associated with health information seeking behaviour. The study will measure health literacy behaviour and health information seeking behaviour using validated scales and use regression analysis to examine the relationship between these variables while controlling for relevant demographic variables.

Overall, this conceptual framework provides a theoretical foundation for the study and suggests potential mechanisms through which health literacy may influence health information seeking behaviour.

Figure 4 Conceptual Framework

Health information seeking behaviour among college students by Basch, Maclean, Romero & Ethan (2018)

The research study examines the health information-seeking behaviour (HISB) of college students, focusing on their utilisation of internet resources and their perceptions of these approaches. The increasing availability of health information online necessitates an awareness of how college students utilise these resources and the motivations influencing their decisions, particularly as they transition to independent health management during their college years.

Health information seeking behaviour (HISB) refers to the process of acquiring information regarding health-related matters [18]. Diverse variables, including personal health issues, hazards, and media impacts, may compel individuals to pursue information regarding health difficulties. College students,

frequently encountering the necessity of making autonomous health decisions for the first time, are a crucial group for HISB research. The proliferation of varied online health resources has transformed health information accessibility; nonetheless, there is a deficiency of targeted research examining the Health Information-Seeking Behaviour (HISB) of this demographic, as they navigate health decisions alongside educational and other obligations [19].

The research adopted an instrument adapted from the Health Information National Trends Survey (HINTS) to evaluate multiple facets of Health Information Seeking Behaviour among university students. It encompassed various areas, including demographics, sources of health information, and perceptions of the accuracy of internet resources. 258 students from nine sections of a personal health course at a public institution in Northern New Jersey responded to the questionnaire. The data were analysed using the IBM Statistical Package for Social Science (SPSS), employing both Chi-square tests and independent sample t-tests to assess the results. A critical threshold was established at $p<0.05$, with endorsement from the Institutional Review Board for ethical adherence [20].

The results demonstrated a pronounced inclination among students to obtain health information over the Internet. Seventy-four percent of respondents indicated that they frequently or consistently utilise the Internet as their primary source of health information, highlighting a significant dependence on online resources over traditional sources like health professionals [20].

The results highlighted the importance of race in HISB; in particular, non-white students reported a higher frequency of Internet use for health information than their white counterparts ($p=.039$). Furthermore, even if students questioned the accuracy of online knowledge since, they knew not all the resources are reliable—they still judged Internet sources useful for their health-related searches [27]. [28] Moreover, a significant portion (85%) of participants used web resources to learn about their health, and 73% of those who self-diagnosed a medical ailment asked a healthcare professional for validation. This trend for self-diagnosis highlights the empowerment given by easily accessible knowledge as well as the possible risks connected to false conclusions drawn from internet sources. The study clarifies the need of improved e-health literacy among college students since good health information-seeking behaviour depends on the ability to spot real health material online. Customised health communication treatments that improve informed decision-making and increase the effectiveness of HISB practices may help children dealing with complex health issues in their early years [29]. This study of health information-seeking behaviour among college students reveals important new angles on their interaction with internet health resources. The study revealed trends and differences in conduct based on gender and ethnicity by means of strict statistical analysis. The results of the study show a significant reliance on internet health information and stress the need of instructional programs to raise e-health literacy among college students. Since many college students monitor their health independently for the first time, it is crucial to equip them with the

necessary skills to effectively use online health resources, thereby ensuring their well-being throughout this change of course. More study in this area is absolutely essential to improve understanding of the reasons for and challenges faced by students in search of accurate health information.

Association of health literacy among nulliparous individuals, maternal and neonatal outcomes by Yee, Silver, Haas, Parry, Mercer, Wing, Reddy, Saade, Simhan and Grobman (2021).

Maternal health literacy and mother and newborn outcomes were investigated in a paper by Yee et al., Association of Health Literacy Among Nulliparous Individuals with Maternal and Neonatal Outcomes. Comprising 9,341 participants across eight US medical centres from 2010 to 2013, this study was a secondary analysis of data from the Nulliparous Pregnancy Outcomes Study: Monitoring Mothers-To-Be (nuMoM2b).

This study is a secondary analysis of data from the Nulliparous Pregnancy Outcomes Study: Monitoring Mothers-To-Be (nuMoM2b), a large multicentre observational cohort study conducted in the United States from 2010 to 2013. The study included 9,341 nulliparous people with singleton gestations who answered the Rapid Estimate of Adult Literacy in Medicine-Short Form (REALM-SF) test [30]. Health literacy was assessed between sixteen and twenty-one weeks of pregnancy using the validated 7-item word recognition test, REALM-SF. With inadequate defined as less than high school level [31], scores were dichotomised as inadequate against appropriate health literacy. Based on proposed causal paths linking health literacy to health outcomes, the researchers chose a priori mother and newborn outcomes. Medical record review [32] helped one to ascertain these results. The researchers examined variations in baseline features and outcomes by health literacy level using ω^2 and t tests to assess the data. With sufficient health literacy as the referent, they built bivariable and multivariable Poisson regression models to assess relative risks of every event. Two sensitivity studies were also carried out by the researchers: one eliminating participants speaking English as a second language and one excluding education from the multivariable models. These studies were carried out to guarantee the validity of the findings and handle possible confusing elements [32].

Between sixteen and twenty-one weeks of gestation, this study evaluated health literacy using the Rapid Estimate of Adult Literacy in Medicine-Short Form (REALM-SF). The findings revealed that 17.5% of the participants lacked sufficient health literacy. Those with poor health literacy were more likely to be younger, have less educational background, have publicly sponsored insurance, and identify as non-Hispanic Black or Hispanic. Inadequate health literacy was linked, the study showed, to a higher chance of caesarean delivery, significant perineal laceration, small-for-gestational-age status, low baby weight, and low 5-minute Apgar scores. One special finding of this study is that health literacy differs from language ability and educational level. The study emphasises how separate social determinant of perinatal health literacy is, which interacts with other risk variables. This result emphasises the need of considering health literacy as a general precaution in obstetric treatment and implies that every patient should be handled with low-health-literate approaches. The study also underlines the need of more investigation on

the processes connecting health literacy to obstetric outcomes and the creation of evidence-based strategies to raise health literacy and strengthen health education in pregnancy treatment. The results show how common poor health literacy is among pregnant people and its link with negative mother and newborn outcomes. This emphasises how important focused treatments meant to raise health literacy are in reducing health inequalities.

The results of Yee et al.'s study match those of earlier studies stressing the influence of health literacy on medical outcomes. In non-obstetric settings, poor health literacy has been connected to poorer utilisation of preventative care, less adherence to treatment, and greater mortality rates. Inadequate health literacy was also linked, according to Yee et al., to negative mother and newborn outcomes including caesarean delivery and neonatal problems.

Some research, meantime, indicate that prenatal education programs can help to offset low health literacy's detrimental consequences. For instance, studies on prenatal education revealed that levels of health literacy had no appreciable effect on delivery results like newborn Apgar values or labour length. [21]. This indicates that targeted interventions, such as educational programs, may help reduce disparities caused by inadequate health literacy.

The implications of the study are highlighted through the findings suggest that inadequate maternal health literacy is associated with a variety of adverse maternal and neonatal outcomes, including greater risk of caesarean delivery, major perineal laceration, small for gestational age status, low birth weight, and low Apgar scores. These results highlight the importance of health literacy as a social determinant of perinatal health that may contribute to health disparities. Healthcare practitioners should recognize the high prevalence of inadequate health literacy and take steps to communicate in an understandable manner with all patients.

A major strength is the use of a large, well-characterized cohort of pregnant individuals that is representative of the US population [22]. The assessment of health literacy using the validated Rapid Estimate of Adult Literacy in Medicine-Short Form (REALM-SF) provides a more robust measure compared to using education as a proxy.

As an observational study, it is subject to unmeasured confounding. Health literacy was assessed at a single time point in mid-pregnancy, so changes over the course of pregnancy were not captured. The REALM-SF is limited as it primarily assesses reading and pronunciation rather than comprehensive health literacy skills like numeracy. The study population was enrolled in a longitudinal study at large medical centres, so the findings may not be fully generalizable [23].

Health literacy and public health: A systematic review and integration of definitions and models Sørensen, Van Den Broucke, Fullam, Doyle, Pelikan, Slonska, & Brand, (2012).

This study presents a systematic review and integration of the definitions and models of health literacy. The authors aimed to develop a comprehensive definition and conceptual model that captures the most evidence-based dimensions of health literacy. This study was motivated by the lack of consensus on the definition and conceptual dimensions of health literacy, which limits measurement and comparison possibilities.

The researchers conducted a systematic literature review to identify the definitions and conceptual framework of health literacy. They performed a content analysis of these definitions and frameworks to identify central dimensions and develop an integrated model. This review resulted in 17 definitions of health literacy and 12 conceptual models. Based on this analysis, the authors developed an integrative conceptual model comprising 12 dimensions. These aspects relate to knowledge, motivation, and competencies of accessing, analysing, evaluating, and using health-related information inside healthcare, disease prevention, and health promotion environments. The suggested integrated model combines the features of a logical model illustrating the proximal and distal elements influencing health literacy and the pathways relating it to health outcomes with a conceptual model defining the main components of health literacy. Referring to competencies in the domains of access, understanding, appraising, and implementing health information in the healthcare, disease prevention, and health promotion, the model recognises 12 elements of health literacy. This paradigm combines views on health literacy from "medical" and "public health". This research offers a special insight on the development of health literacy as the HL concept. Originally concentrated on simple reading and math abilities in hospital environments, it has evolved to incorporate a broad spectrum of competences including information-seeking, decision-making, problem-solving, critical thinking, and communication. Reflecting a more complete knowledge of health literacy, the notion today includes linguistic, contextual, and cultural elements. Beyond personal abilities, this development emphasises the increasing public awareness of health literacy as a public health objective and determinant of health by including environmental and society elements.

The study offers an "all-inclusive" definition of health literacy combining public health and medical angles. This is important since a public health viewpoint takes into account more general elements like navigating healthcare institutions and comprehending public health campaigns, while a purely medical perspective could concentrate just on a patient's ability to understand drug instructions. The concept might thus cover knowledge of how to access local vaccination clinics (public health) as well as how to take an

antibiotic correctly (medical). It creates a thorough conceptual model including the essential aspects of health literacy together with its antecedents and implications. This model likely outlines, not only what constitutes health literacy (e.g., reading comprehension, numeracy, communication skills) but also what factors influence it (e.g., education level, socioeconomic status, cultural background) and what outcomes it affects (e.g., health behaviours, chronic disease management, healthcare costs). A well-defined model helps researchers and practitioners understand the complex interplay of these factors.

The proposed model can serve as a basis for developing health literacy enhancing interventions. For instance, if the model identifies low numeracy skills as a key barrier to medication adherence, interventions could be designed to improve patients' ability to understand dosage instructions through visual aids or simplified language. The model can provide a conceptual basis for developing and validating measurement tools to capture the different dimensions of health literacy. Existing health literacy assessments often focus on narrow aspects; this model could inform the creation of more comprehensive tools that assess a wider range of skills and knowledge, leading to a more accurate understanding of an individual's or population's health literacy level. For example, a new tool might include sections on understanding statistical information presented in public health reports, in addition to traditional reading comprehension tasks.

The study does not explicitly state any limitations of the study. This absence is a significant oversight, as all research has inherent limitations. The review and model development approach appears thorough, but the authors do not mention potential limitations or caveats. For example, the authors should acknowledge if the literature review was limited to specific databases or languages, which could introduce bias. They should also discuss whether the model's dimensions are equally weighted or if some dimensions are more influential than others and how this was determined. Moreover, the generalisability of the model should be discussed; does it equally fit different people with different cultural backgrounds and healthcare systems? Accepting these possible constraints would help the research to be more credible. [24].

Improving health literacy using the power of digital communication to achieve better health outcomes for patients and practitioners by Fitzpatrick, P. J. (2023).

The possibilities of digital communication tools—including mobile health apps, telemedicine, and online health information resources—to raise health literacy and hence attain better health outcomes for patients and practitioners—are discussed in this paper The paper addresses the need of digital communication tools in raising health literacy and reaching improved health outcomes for individuals and healthcare professionals. The paper underlines how important health literacy—defined as the capacity to acquire, understand, and use health information—is in advancing improved health results. It emphasises the possibilities of digital communication tools including mobile health apps, telemedicine, and online health information resources to improve health literacy and enable people to take a more active part in managing their health. The study notes notable differences between nations and areas and offers a general picture of the present level of health literacy around. It offers data from many studies demonstrating that many

persons globally have poor degrees of health literacy. The paper then explores how methods of digital communication could raise health literacy. It covers the advantages of mobile health apps in offering individualised education and support, the part telemedicine plays in enabling remote consultations and so improving access to healthcare services, and the possibilities of online health information resources in supporting patient education and decision-making. The paper also tackles the difficulties and constraints related to programs aiming at digital health literacy. These include privacy and security concerns relating to sensitive health data, access and connectivity obstacles, questions regarding the integrity and dependability of online health information, and the necessity of tackling health inequalities and hence supporting inclusivity in digital health literacy initiatives. The paper underlines the need of tackling these obstacles in order to fully enjoy the advantages of programs promoting digital health literacy. This paper offers a special viewpoint since it addresses digital health literacy in its whole, including ethical and legal issues in addition to the possible advantages. To guarantee patient safety, privacy, and ethical use, the paper underlines the need of strong government and control of digital health instruments. While warning against the dangers of algorithmic prejudices and limited data sets, it also highlights the possibilities of modern technologies as artificial intelligence and predictive analytics in clinical decision-making. This balanced view emphasises the difficulty of applying digital health solutions and the necessity of a multifarious strategy to really maximise their possibilities in raising health literacy and results.

The ability of digital technologies to improve patient education, self-management, clinical decision-making, and communication among healthcare practitioners marks the main strength underlined in the review. Interactive apps, for example, can enable users to track blood sugar levels, food, and exercise, therefore offering tailored instruction on managing chronic diseases including diabetes [35]. Studies have indicated that these kinds of digital interventions can help to lower hospital readmissions and enhance glycaemic management. Likewise, telehealth systems enable fast access to experts by means of remote consultations, therefore enabling prompt access to specialists especially for patients in rural or underdeveloped locations. AI-powered diagnostic technologies that can examine patient data and medical imaging to help doctors in producing more accurate and efficient diagnosis hence improve clinical decision-making. Moreover, encrypted messaging systems let healthcare professionals communicate better, thereby facilitating smooth information exchange and cooperative care planning that finally results in improved patient outcomes [36]. The paper also addresses the ramifications of using digital communication tools to maximise involvement, improve health literacy among many groups, and change healthcare delivery. Gamified health apps, for instance, can raise patient involvement by making chores connected to health more fun and fulfilling. Customised digital content in several languages and formats can improve health literacy among different populations so that people may grasp and use health information [37]. By means of digital tools incorporated into healthcare delivery, workflows may be streamlined, administrative tasks can be minimised, and the general efficiency of the healthcare system can be enhanced, therefore fostering a more patient-centred and accessible model of care. The report does, however, also highlight limits and difficulties related to digital health literacy, including access and

connectivity issues, dependability and veracity of online information, privacy and security concerns, and health inequalities. Older folks and low-income populations especially suffer from the digital gap, which is defined by unequal access to technology and internet connectivity, therefore reducing their capacity to gain from digital health initiatives. The spread of false information and erroneous medical advice on the internet seriously jeopardises public health since people could make bad judgements depending on untrustworthy sources. Data leaks and invasions of privacy can weaken patient confidence and deter the acceptance of digital health technology. Furthermore, if not carefully planned and executed to meet the particular needs of vulnerable groups, the adoption of digital health solutions can unintentionally aggravate already existing health disparities [38]. Algorithms included in AI-powered diagnostic tools, for instance, might be biassed against specific racial or ethnic groups, therefore creating differences in treatment. Thus, overcoming these constraints and obstacles is essential to guarantee that digital health technologies are applied fairly and successfully to increase health outcomes for all [39].

Profiles of digital health literacy among university students and its association with mental health during the COVID-19 pandemic: A latent profile analysis Ning, Zheng, Liu, Gao, Yang, Bi, Yu, & Yi, (2024).

This study presents a study on digital health literacy among university students and its association with mental health during the COVID-19 pandemic. The research, conducted at Jilin University in China, involved 1060 students and employed latent profile analysis to identify subtypes of digital health literacy. The study also examined the relationship between digital health literacy and mental health outcomes, specifically fear of COVID-19 and depression.

The researcher utilized a cross-sectional study design which they conducted at Jilin University in China from November 17 to December 14, 2022, used stratified cluster sampling to select participants from medical and non-medical colleges which included both undergraduates and graduate students (Ning et al., 2024). The Final sample size of 1060 participants (99.1% response rate) [44].

The data collection method used was an online survey instrument used to collect data. Ethical approval was obtained from Medical Ethics Committee of Jilin University. Informed consent obtained from all participants

Instruments and Measurements used are the validated Digital Health Literacy Instrument (DHLI) [25] [26] which the researcher adapted for COVID-19 context, including 5 subscales; (1) information searching, (2) evaluating reliability, (3) determining relevance, (4) adding content, and (5) protecting privacy each including 4-point Likert scale used [47] and showed good internal consistency (Cronbach's alpha = 0.951).

The Fear of COVID-19 Scale (FCV-19S), seven items rated on a 5-point Likert scale with a resulting good internal consistency (Cronbach's alpha = 0.916)

As for depression the Patient Health Questionnaire (PHQ-9) is a 9-items rated on a 4-point Likert scale which showed a good internal consistency (Cronbach's alpha = 0.948)

Descriptive analysis for demographic variables. Latent profile analysis to identify subtypes of digital health literacy. Chi-square test, ANOVA, and Fisher's exact test to examine differences in latent profiles. T-test and ANOVA for comparing fear of COVID-19 and depression scores. Multiple linear regression to examine associations between digital health literacy and mental health outcomes. Used SPSS 25.0 and Mplus 7.31 software for analyses [44].

The study identified three distinct profiles of digital health literacy among university students: low (6.23%), moderate (66.60%), and high (27.17%). The overall mean score for digital health literacy was 3.00 ± 0.49. The research revealed that students in the low and moderate digital health literacy groups faced challenges in evaluating information reliability but demonstrated higher scores in privacy protection. The study found a negative correlation between digital health literacy and both fear of COVID-19 ($B = -2.954$, $P < 0.001$) and depression ($B = -2.619$, $P < 0.001$) among university students.

This research offers several unique and interesting insights. Firstly, it highlights the heterogeneity in digital health literacy among university students [48], with the majority falling into the moderate category. This suggests a need for targeted interventions to improve digital health literacy skills, particularly in evaluating information reliability. Second, the study shows a gender disparity in digital health literacy profiles: men are more common in both low and high digital health literacy categories. These results question accepted wisdom regarding gender and digital literacy. Finally, the study emphasises the possible preventive function of digital health literacy against mental health problems during a pandemic and suggests that improving these abilities could be a good approach for supporting psychological well-being among university students in times of health emergencies [49]. This study is robust and useful since it uses a person-centred approach, latent profile analysis (LPA), to find several subtypes of digital health literacy among university students [48]. This methodology enables a more complex knowledge of digital health literacy patterns by overcoming constraints of past variable-centred approaches. Ensuring strong data collecting with a large sample size which comprises 1060 valid replies, it uses validated instruments to measure digital health literacy (DHLI), fear of COVID-19 (FCV-19S), and depression (PHQ-9) [48], therefore offering a significant dataset for analysis. To provide a more complete knowledge of the issue, the study looks at not just digital health literacy profiles but also their correlations with mental health outcomes. Based on observed subgroups, the results offer educators and legislators practical insights suggesting focused digital health literacy instruction and timely psychological therapy. By using several statistical approaches, including descriptive analysis, chi-square tests, ANOVA, and multiple linear regression, so improving the validity [48] of the conclusions and hence highly relevant to current public health challenges in the framework of the COVID-19 epidemic [48]. The study reveals subgroups with

less digital health literacy, which enables focused interventions and notes intriguing trends in digital health literacy across sexes, therefore contributing to a more complex knowledge of the subject. As a variable, the self-reported health shows a notable correlation with results on mental health.

The study's cross-sectional nature makes it difficult to establish causal relationships between variables. This limitation restricts the ability to determine whether digital health literacy directly causes changes in mental health outcomes or vice versa. The study was conducted at a single comprehensive university in China, which may limit the generalizability of the findings to other settings or populations. This limitation means that the results may not be applicable to students in different countries, cultures, or types of educational institutions. Most university students in the study were not directly or indirectly exposed to COVID-19 [48]. This limitation reduces the applicability of the findings to populations with higher exposure rates, as the mental health impacts and digital health literacy needs may differ in such contexts. Additional the study relies on self-reported measures for digital health literacy, fear of COVID-19, and depression [48]. This approach may introduce bias due to social desirability or inaccurate self-assessment. The research was conducted from November to December 2022, which is a specific point in the pandemic's timeline. The findings may not reflect the changing dynamics of digital health literacy and mental health throughout the entire course of the pandemic [48]. While the study controlled for some demographic variables, there might be other unmeasured factors influencing the relationship between digital health literacy and mental health outcomes.
These limitations affect the study's internal and external validity, potentially impacting the strength and generalizability of the conclusions drawn from the research [27].

The Association between Health Literacy and Self-Rated Health Amongst Australian University Students by Storey, Hanna, Missen, Hakman, Osborne, & Beauchamp (2020)

This is a study on health literacy and self-rated health conducted among Australian university students. Health literacy is more than just understanding health instructions [28]. It also entails how we interact with healthcare providers and services and being able to find reliable health information. Universities offer a platform for health promotion as individuals leave their homes. They no longer have their parents and relatives to rely on in terms of making health decisions. A once in a lifetime event of transitioning from teenagers to young adults. Current bodies of knowledge suggest that university students generally have an inadequate health literacy despite considerable variations in the findings due to the settings and measurement instruments used [19]. Some identified demographic difference although there are still some variations.

There has been a significant increase in the number of research conducted on health literacy over the past two decades, with a focus on the associations between health literacy, health behaviours, and health

outcomes [19] [43]. The concept of health literacy has expanded beyond just understanding instructions, to also encompass how people engage with health providers, navigate health services, use social supports, and find reliable health information. The Health Literacy Questionnaire (HLQ) is identified as a widely used multidimensional framework to measure health literacy in recent years.

The use of a multidimensional health literacy measure may provide greater insight into the health literacy of specific student populations [19]. Past studies depict a consistent association between self-rated health and health literacy in the general population [48] but some few studies have examined this relationship [48] with regards to university students using a multidimensional health literacy instrument [19]which this study aims to do by using a Health Literacy Questionnaire (HLQ) [48].

Health literacy is defined as the cognitive and social skills that determine a person's ability to gain access to, understand and use information to promote and maintain good health. Therefore, it is important to use a robust multidimensional measure of health literacy to investigate the health literacy of university students and its relationship with their self-rated health.

There is a consistent association between self-rated health and health literacy in the general population, but few studies have explored this in tertiary students [48] using a multidimensional measure. This study aimed to investigate the association between self-rated health and health literacy among Australian university students using the HLQ [19].

There was a clear positive association between self-rated health and health literacy - as health literacy increased, so did self-rated health [48].

Lower health literacy was found among culturally/linguistically diverse students and those studying Arts compared to Health degrees. Lower self-rated health was correlated with being less active in health management, having less social support, lacking health information, and lower confidence navigating the healthcare system [48] [28].

CHAPTER III

METHODOLOGY

3.1 Study Design

This study employed a **cross-sectional descriptive design** aimed at assessing the level of health literacy and health-seeking among university students. This study design was chosen to much the dissertation timeline and the topic and area of the study.

The study was conducted using a **quantitative approach** through an online self-administered questionnaire. This design was chosen to allow for the collection of data at a single point in time and to provide a snapshot of the health literacy levels across diverse academic disciplines, sex, and age groups.

3.2 Study Population

The target population included **554 university students aged 17 to 40 plus years including undergraduate and post graduate students**, enrolled in various academic disciplines including health sciences fields. The study aimed to include a diverse sample in terms of **sex (male and female)** and **field of study**, enabling the examination of health literacy across different subgroups within the university setting.

Using an online sample size generator with a confidence level of 95%, margin of error 5% to determine the sample size for a population size of 554. The result from the calculation was 111 sample size

3.3 Sampling Technique

Due to the nature of the study and participant availability, the researcher used **convenience sampling method**, direct messaging as well as recruiting people via WhatsApp through academic and social organisations. In order to further widen the sample and raise its diversity, participants were also urged to distribute the survey to coworkers using a snowball sampling technique. The researcher also personally contacted possible subjects to request their involvement in the relevant study.

3.4 Data Collection Tool

The **European Health Literacy Survey Questionnaire (HLS-EU-Q)** (Finbråten et al., 2018) was used short version data collecting (Sørensen et al., 2015). The instrument evaluates people's apparent difficulties accessing, comprehending, evaluating, and using health information. Its response choices follow a 4-point Likert scale:

- **Very difficult**
- **Difficult**
- **Easy**
- **Very easy**

This standardized and validated instrument was selected due to its robust psychometric properties and widespread application in health literacy studies across various populations.

The **Health Information Seeking Behaviour survey** (Kalankesh et al., 2019) is the instrument for gathering data on this activity. It employs a **5-point Likert scale, a 4-point Likert scale, and a 2-point scale** with response options:

Never	**Once a month or more**	**Yes**	**Very Interested**	**Very Unlikely**
Rarely	**Less than once a month**	**No**	**Somewhat Interested**	**Unlikely**
Sometimes			**A Little Interested**	**Neutral**
Often			**Not at All Interested**	**Likely**
Always				**Very Likely**

Table 1 4-point Likert Scale

3.5 Data Collection Procedure

Designed using **Google Forms**, the survey went live online. Leveraging the great usage of the site among university students, the questionnaire link was distributed mostly through **WhatsApp groups and individual chats**. The researcher also encouraged participants to forward the form to their peers, enhancing the sample size and diversity. Additionally, the researcher made direct contact with prospective participants in order to solicit their participation in the study of interest.

3.6 Ethical Considerations

Ethical principles were strictly observed throughout the study:

- Participation was **voluntary**, and respondents provided informed consent before proceeding with the survey.
- The **objective of the study** was clearly explained at the beginning of the form.
- **Anonymity and confidentiality** were assured; **no personal identifiers** (such as email addresses, names, or contact information) were collected.
- The survey was designed to **avoid any harm or discomfort**, and respondents were free to withdraw at any time without penalty.
- Ethical clearance was sought and obtained from the appropriate supervisor.

3.7 Data Analysis

Data collected from Google Forms will be downloaded and analysed using **descriptive statistics** (mean, frequencies, percentages) and **inferential statistics** (e.g., chi-square tests or t-tests) to explore

associations between health literacy levels and demographic variables such as sex, age, and field of study. Statistical analysis may be performed using software **SPSS**, depending on availability.

3.7.1 Reliability

Reliability refers to how consistent an instrument is, meaning that a repetition of the use of the instrument or test would repeat the same results provided the subjects are the same; in other words, reliability refers to the likelihood that a product, system, or service will function as intended for a predetermined period of time or will run faultlessly in a predetermined environment [29]. A measure is said to be reliable if an individual's score on the same test given twice is similar.

A pilot analysis on the reliability was conducted. The result of the analysis is as below;

Scale: Health Literacy

Case Processing Summary

		N	%
Cases	Valid	80	100.0
	Excluded[a]	0	.0
	Total	80	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.884	.884	12

with α > .80 suggesting good reliability

Scale: Health Seeking Behaviour

Case Processing Summary

		N	%

Cases	Valid	78	97.5
	Excluded[a]	2	2.5
	Total	80	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.757	.712	20

With the α > .70 meaning an adequate reliability

After data a suitable sample of data was obtained the online google, forms were closed ceasing response collection. A reliability analysis was conducted for the 217 responses obtained. The result of the analysis is as below;

Scale: HEALTH LITERACY

Case Processing Summary

		N	%
Cases	Valid	217	100.0
	Excluded[a]	0	.0
	Total	217	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.849	.850	12

Item Statistics

	Mean	Std. Deviation	N
HL1	2.88	.581	217
HL2	2.73	.571	217
HL3	2.66	.633	217
HL4	2.88	.556	217
HL5	2.51	.701	217
HL6	2.72	.606	217
HL7	2.83	.646	217
HL8	2.81	.558	217
HL9	2.86	.563	217
HL10	2.87	.537	217
HL11	2.75	.589	217
HL12	2.84	.650	217

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.779	2.512	2.880	.369	1.147	.012	12
Inter-Item Covariances	.115	.030	.239	.209	7.855	.002	12

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
HL1	30.47	17.148	.426	.248	.843
HL2	30.62	16.719	.533	.349	.836
HL3	30.69	16.651	.481	.369	.840
HL4	30.47	16.972	.491	.277	.839
HL5	30.84	16.191	.505	.387	.839
HL6	30.63	16.198	.608	.521	.830
HL7	30.52	16.334	.533	.330	.836
HL8	30.54	16.666	.561	.391	.834
HL9	30.49	16.983	.481	.489	.840
HL10	30.48	17.056	.493	.432	.839
HL11	30.60	16.481	.565	.388	.834
HL12	30.51	16.279	.540	.446	.835

Scale: HEALTH INFORMATION SEEKING BEHAVIOUR

Case Processing Summary

		N	%
Cases	Valid	213	98.2
	Excluded[a]	4	1.8
	Total	217	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.770	.752	20

Item Statistics

	Mean	Std. Deviation	N
HISB1	3.17	1.034	213
HISB2	3.32	.996	213
HISB3	3.38	1.047	213
HISB4	2.88	1.055	213
HISB5	3.25	1.103	213
HISB6	2.71	1.128	213
HISB7	1.44	.497	213
HISB8	1.38	.487	213

HISB9	2.20	.961	213
HISB10	1.25	.436	213
HISB11	1.29	.455	213
HISB12	2.99	.903	213
HISB13	3.18	.914	213
HISB14	3.12	.903	213
HISB15	3.23	.956	213
HISB16	3.24	.805	213
HISB17	3.20	.788	213
HISB18	3.20	.688	213
HISB19	3.34	.841	213
HISB20	3.38	.790	213

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.758	1.254	3.385	2.131	2.700	.603	20
Inter-Item Covariances	.108	-.115	.577	.693	-5.012	.021	20

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
HISB1	51.99	49.802	.346	.397	.760
HISB2	51.85	51.056	.272	.355	.766
HISB3	51.78	47.899	.478	.451	.749
HISB4	52.28	51.335	.230	.259	.770
HISB5	51.92	48.908	.376	.410	.758
HISB6	52.46	48.730	.376	.411	.758
HISB7	53.73	55.642	.004	.164	.775
HISB8	53.78	55.472	.029	.305	.774
HISB9	52.97	54.268	.052	.208	.781
HISB10	53.91	55.751	-.003	.420	.775
HISB11	53.87	55.856	-.021	.442	.776
HISB12	52.18	47.930	.574	.485	.743
HISB13	51.99	48.514	.516	.543	.747
HISB14	52.04	49.352	.454	.483	.752
HISB15	51.93	49.779	.388	.388	.756
HISB16	51.92	49.404	.519	.517	.748
HISB17	51.97	50.947	.387	.534	.757
HISB18	51.96	51.121	.440	.479	.755
HISB19	51.82	49.317	.499	.563	.749
HISB20	51.78	50.512	.426	.476	.755

3.7.2 Validity

Validity tells you how accurately a method measures something. If a method measures what it claims to measure, and the results closely correspond to real-world values, then it can be considered valid [29]. To establish content validity, an extensive review of the existing literature was conducted to identify previously validated scales or measures that have effectively captured health information seeking behaviour. This literature review serves as a foundation for identifying the key dimensions and relevant items that should be included in the measurement instrument. By employing established measures and incorporating expert input (that is the research supervisor's approval on the scale used), this study aims to use a measurement instrument with robust content validity. This rigorous approach will increase the likelihood of accurately capturing the health literacy of Uttaranchal University students and their health seeking behaviour, thereby ensuring the validity of the study's findings.

3.8 Data Analysis Plan

Once data is collected through Google Forms, the analysis will be conducted as follows:

Data Cleaning and Preparation:

- Export responses into a spreadsheet (Excel format).
- Clean the dataset by removing incomplete or duplicate responses.
- Code Likert-scale responses numerically (Very Difficult = 1, Difficult = 2, Easy = 3 and Very Easy = 4), (Never = 1, Rarely = 2, Sometimes = 3, Often = 4, Always = 5), (Once a month or more = 1, Less than once a month = 2), (Yes = 1, No = 2), (Very Interested = 1, Somewhat Interested = 2, A Little Interested = 3, Not at All Interested = 4), (Very Unlikely = 1, Unlikely = 2, Neutral = 3, Likely = 4, Very Likely = 5) to calculate overall scores.

Descriptive Analysis:

- Compute frequencies, percentages, and mean scores to describe health literacy levels across the population.
- Generate tables and charts to visualize distribution by sex, age group, and field of study.

Inferential Analysis:

- **T-tests or ANOVA** will be used to compare means between groups (e.g., medical and paramedical fields).
- **Chi-square tests** may be used to test associations between categorical variables like sex and literacy levels.
- **Correlation analysis** can be used to assess relationships between age and health literacy scores.

Software:

- The data will be analysed using **SPSS**, depending on availability and researcher preference.

CHAPTER IV

VARIABLE	*SUB-SCALE*	*FREQUENCY*	*PERCENTAGE*
SEX	MALE	80	36.9%
	FEMALE	137	63.1%
AGE	17 - 22	170	78.3%
	23 – 27	31	14.3%
	28 – 32	9	4.1%
	33 – 39	6	2.8%
	40 or more	1	0.5%
PREFERRED SOURCE OF TREATMENT	HOMEOPATHY	35	16.1%
	AYUVERDA	20	9.2%
	ALLOPATHY	67	30.9%
	OTHER	95	43.8%
PROGRAM	MPH	21	9.7%
	MHA	15	6.9%
	BMLT	21	9.7%
	BOTT	14	6.5%
	BOPT	14	6.5%
	BMRIT	68	31.3%
	NURSING	33	15.2%
	PHYSIOTHERAPY	31	14.3%
CLOSE FAMILY MEMBER IN THE HEALTH PROFESSION	YES	107	49.1%
	NO	111	50.9%

RESULTS

4.1 RESULTS

The findings from the data analysis are presented in this chapter. The analysis was structured and evaluated according to the study's principal goals. Two hundred and seventeen (217) questionnaire

responses were received through the online questionnaires administered, and all were answered without errors. This represented 100% of the questionnaires used for the analysis. The study specifically looked at how health literacy affects health information seeking behaviour among Uttaranchal College of Health Sciences students, whether or not participants of an age range are likely to seek health information and their health literacy rates.

(Source: Field survey 2025)

Table 2 Questionnaire Responses

From the table above, out of 217 respondents, 80 were male and 137 were male which represented 36.9% being males and 63.1% being females. Respondents which fall under the age ranges of 17-22, 23-27, 28-32, 33-39 and 40 or more were 170(78.3%), 31(14.3%), 9(4.1%), 6(2.8%) and 1(0.5%) respectively. Respondents preferred source of treatment homeopathy, ayurveda, allopathy, and other were 35(16.1%), 20(9.2%), 67(30.9%), and 95(43.8%) respectively. For program of study there are Master of Public Health (MPH), Master of Health Administration (MHA), BSc Medical Lab Technology (BMLT), BSc Operation Theatre (BOTT), BSc Optometry (BOPT), BSc Medical Radio Imaging Technology (BMRIT), BSc Nursing, BSc Physiotherapy were 21(9.7%), 15(6.9%), 21(9.7%), 14(6.5%), 14(6.5%), 68(31.3%), 33(15.2%) and 31(14.3%) respectively. With regards to having a close family member in the health profession 107(49.1%) selected Yes and 111(50.9%) selected No.

Frequency Table

HL1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	6	2.8	2.8	2.8
	Difficult	33	15.2	15.2	18.0
	Easy	159	73.3	73.3	91.2
	Very Easy	19	8.8	8.8	100.0
	Total	217	100.0	100.0	

HL2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	4	1.8	1.8	1.8
	Difficult	60	27.6	27.6	29.5
	Easy	143	65.9	65.9	95.4
	Very Easy	10	4.6	4.6	100.0
	Total	217	100.0	100.0	

HL3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	7	3.2	3.2	3.2
	Difficult	71	32.7	32.7	35.9
	Easy	127	58.5	58.5	94.5
	Very Easy	12	5.5	5.5	100.0
	Total	217	100.0	100.0	

HL4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	6	2.8	2.8	2.8

	Difficult	30	13.8	13.8	16.6
	Easy	165	76.0	76.0	92.6
	Very Easy	16	7.4	7.4	100.0
	Total	217	100.0	100.0	

HL5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	16	7.4	7.4	7.4
	Difficult	84	38.7	38.7	46.1
	Easy	107	49.3	49.3	95.4
	Very Easy	10	4.6	4.6	100.0
	Total	217	100.0	100.0	

HL6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	7	3.2	3.2	3.2
	Difficult	57	26.3	26.3	29.5
	Easy	142	65.4	65.4	94.9
	Very Easy	11	5.1	5.1	100.0
	Total	217	100.0	100.0	

HL7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	9	4.1	4.1	4.1
	Difficult	39	18.0	18.0	22.1
	Easy	148	68.2	68.2	90.3
	Very Easy	21	9.7	9.7	100.0
	Total	217	100.0	100.0	

HL8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	3	1.4	1.4	1.4
	Difficult	49	22.6	22.6	24.0
	Easy	151	69.6	69.6	93.5
	Very Easy	14	6.5	6.5	100.0
	Total	217	100.0	100.0	

HL9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	6	2.8	2.8	2.8
	Difficult	34	15.7	15.7	18.4

	Easy	162	74.7	74.7	93.1
	Very Easy	15	6.9	6.9	100.0
	Total	217	100.0	100.0	

HL10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	5	2.3	2.3	2.3
	Difficult	32	14.7	14.7	17.1
	Easy	166	76.5	76.5	93.5
	Very Easy	14	6.5	6.5	100.0
	Total	217	100.0	100.0	

HL11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	7	3.2	3.2	3.2
	Difficult	51	23.5	23.5	26.7
	Easy	149	68.7	68.7	95.4
	Very Easy	10	4.6	4.6	100.0
	Total	217	100.0	100.0	

HL12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Difficult	9	4.1	4.1	4.1
	Difficult	39	18.0	18.0	22.1
	Easy	147	67.7	67.7	89.9
	Very Easy	22	10.1	10.1	100.0
	Total	217	100.0	100.0	

HISB1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	8	3.7	3.7	3.7
	Rarely	43	19.8	19.8	23.5
	Sometimes	99	45.6	45.6	69.1
	Often	34	15.7	15.7	84.8
	Always	33	15.2	15.2	100.0
	Total	217	100.0	100.0	

HISB2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	3	1.4	1.4	1.4
	Rarely	40	18.4	18.4	19.8

	Sometimes	93	42.9	42.9	62.7
	Often	47	21.7	21.7	84.3
	Always	34	15.7	15.7	100.0
	Total	217	100.0	100.0	

HISB3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	4	1.8	1.8	1.8
	Rarely	42	19.4	19.4	21.2
	Sometimes	79	36.4	36.4	57.6
	Often	53	24.4	24.4	82.0
	Always	39	18.0	18.0	100.0
	Total	217	100.0	100.0	

HISB4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	21	9.7	9.7	9.7
	Rarely	55	25.3	25.3	35.0
	Sometimes	92	42.4	42.4	77.4
	Often	30	13.8	13.8	91.2
	Always	19	8.8	8.8	100.0
	Total	217	100.0	100.0	

HISB5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	12	5.5	5.5	5.5
	Rarely	39	18.0	18.0	23.5
	Sometimes	90	41.5	41.5	65.0
	Often	39	18.0	18.0	82.9
	Always	37	17.1	17.1	100.0
	Total	217	100.0	100.0	

HISB6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	34	15.7	15.7	15.7
	Rarely	63	29.0	29.0	44.7
	Sometimes	75	34.6	34.6	79.3
	Often	27	12.4	12.4	91.7
	Always	18	8.3	8.3	100.0
	Total	217	100.0	100.0	

HISB7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Once a month or more	123	56.7	56.7	56.7
	Less than once a month	94	43.3	43.3	100.0

	Total	217	100.0	100.0	

HISB8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	133	61.3	61.3	61.3
	No	84	38.7	38.7	100.0
	Total	217	100.0	100.0	

HISB9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Interested	58	26.7	26.7	26.7
	Somewhat Interested	80	36.9	36.9	63.6
	A Little Interested	56	25.8	25.8	89.4
	Not At All Interested	23	10.6	10.6	100.0
	Total	217	100.0	100.0	

HISB10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	161	74.2	74.2	74.2
	No	56	25.8	25.8	100.0
	Total	217	100.0	100.0	

HISB11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	155	71.4	71.4	71.4
	No	62	28.6	28.6	100.0
	Total	217	100.0	100.0	

HISB12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unlikely	17	7.8	7.8	7.8
	Unlikely	26	12.0	12.0	19.8
	Neutral	127	58.5	58.5	78.3
	Likely	36	16.6	16.6	94.9
	Very Likely	11	5.1	5.1	100.0
	Total	217	100.0	100.0	

HISB13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unlikely	15	6.9	6.9	6.9
	Unlikely	15	6.9	6.9	13.8
	Neutral	115	53.0	53.0	66.8
	Likely	58	26.7	26.7	93.5
	Very Likely	14	6.5	6.5	100.0
	Total	217	100.0	100.0	

HISB14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unlikely	18	8.3	8.3	8.3
	Unlikely	17	7.8	7.8	16.1
	Neutral	112	51.6	51.6	67.7
	Likely	62	28.6	28.6	96.3
	Very Likely	8	3.7	3.7	100.0
	Total	217	100.0	100.0	

HISB15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unlikely	14	6.5	6.5	6.5
	Unlikely	22	10.1	10.1	16.6
	Neutral	104	47.9	47.9	64.5
	Likely	58	26.7	26.7	91.2
	Very Likely	19	8.8	8.8	100.0
	Total	217	100.0	100.0	

HISB16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Inaccurate	7	3.2	3.2	3.2
	Inaccurate	15	6.9	6.9	10.1
	Neutral	125	57.6	57.6	67.7
	Accurate	57	26.3	26.3	94.0
	Very Accurate	13	6.0	6.0	100.0
	Total	217	100.0	100.0	

HISB17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Inaccurate	7	3.2	3.2	3.2
	Inaccurate	18	8.3	8.3	11.5
	Neutral	128	59.0	59.0	70.5
	Accurate	54	24.9	24.9	95.4
	Very Accurate	10	4.6	4.6	100.0
	Total	217	100.0	100.0	

HISB18

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	2.8	2.8	2.8
	Disagree	7	3.2	3.2	6.0

	Neutral	148	68.2	68.2	74.2
	Agree	48	22.1	22.1	96.3
	Strongly Agree	8	3.7	3.7	100.0
	Total	217	100.0	100.0	

HISB19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	4.6	4.6	4.6
	Disagree	6	2.8	2.8	7.4
	Neutral	115	53.0	53.0	60.4
	Agree	71	32.7	32.7	93.1
	Strongly Agree	15	6.9	6.9	100.0
	Total	217	100.0	100.0	

HISB20

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	2.8	2.8	2.8
	Disagree	10	4.6	4.6	7.4
	Neutral	111	51.2	51.2	58.5
	Agree	76	35.0	35.0	93.5
	Strongly Agree	14	6.5	6.5	100.0
	Total	217	100.0	100.0	

Pie Chart

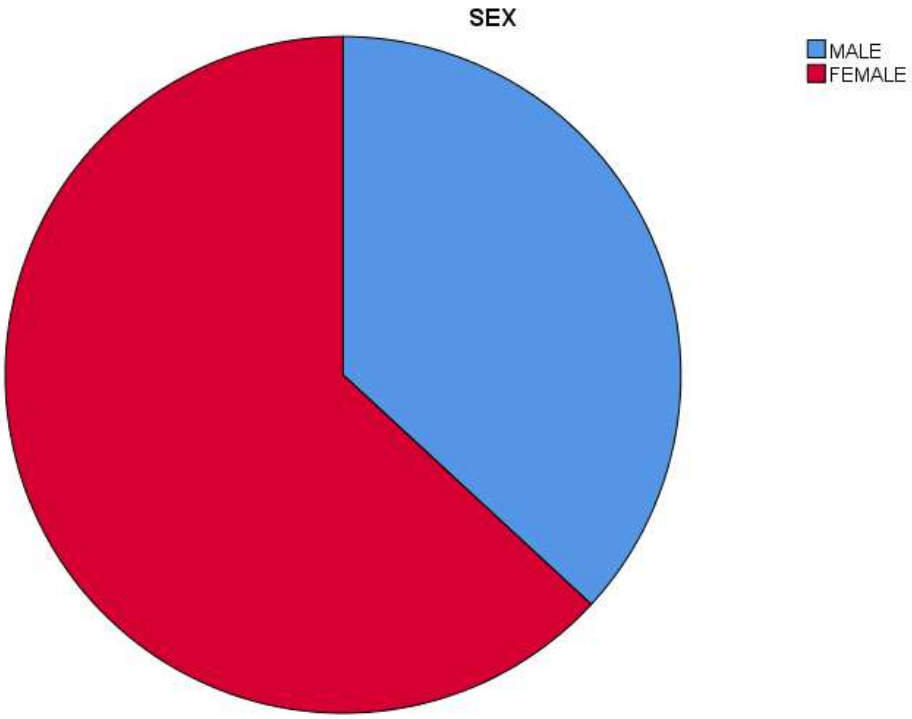
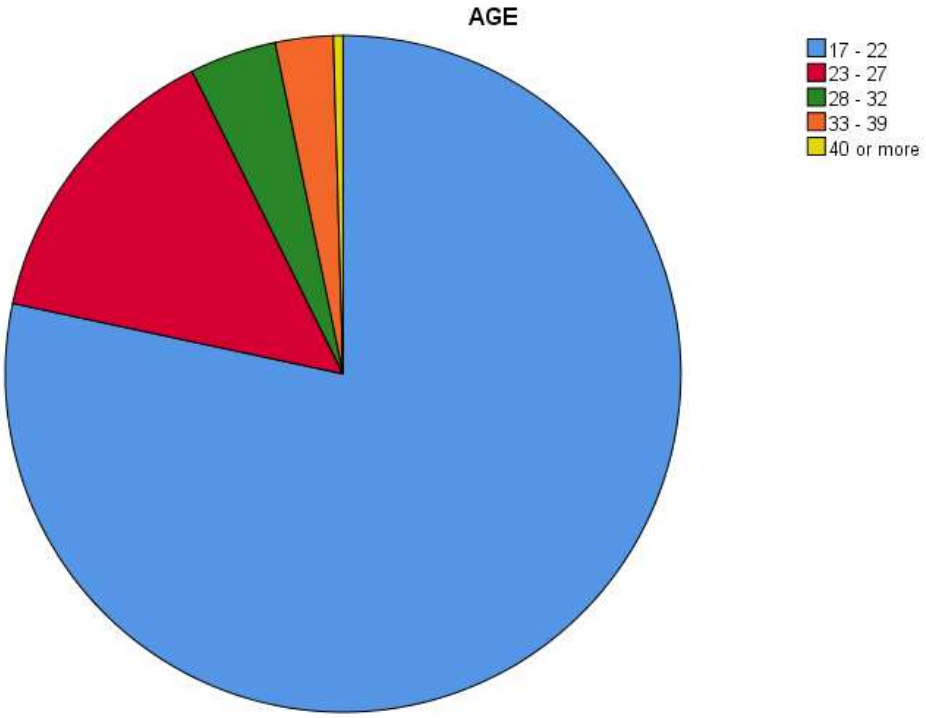
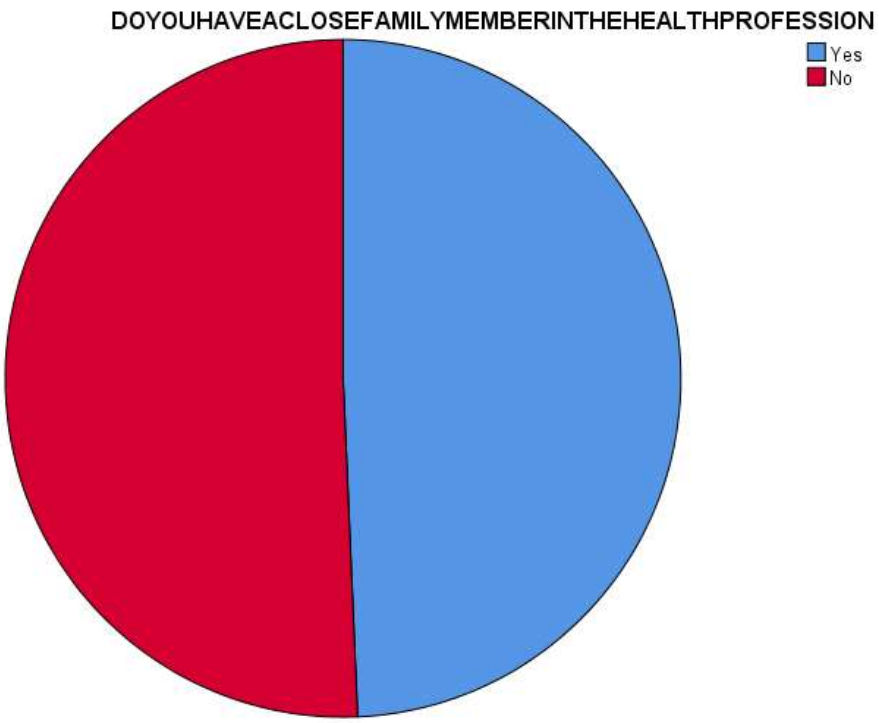


Figure 5 Pie Chart


AGE
17 - 22
23 - 27
28 - 32
33 - 39
40 or more


DOYOUHAVEACLOSEFAMILYMEMBERINTHEHEALTHPROFESSION
Yes
No

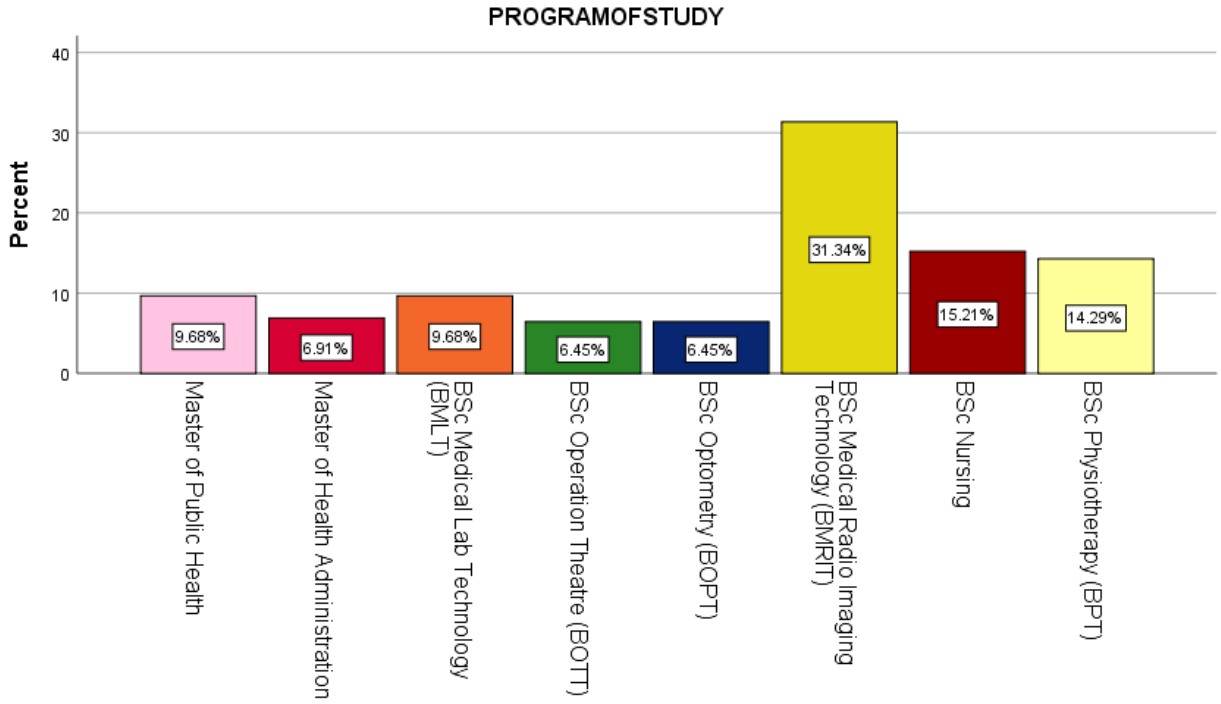
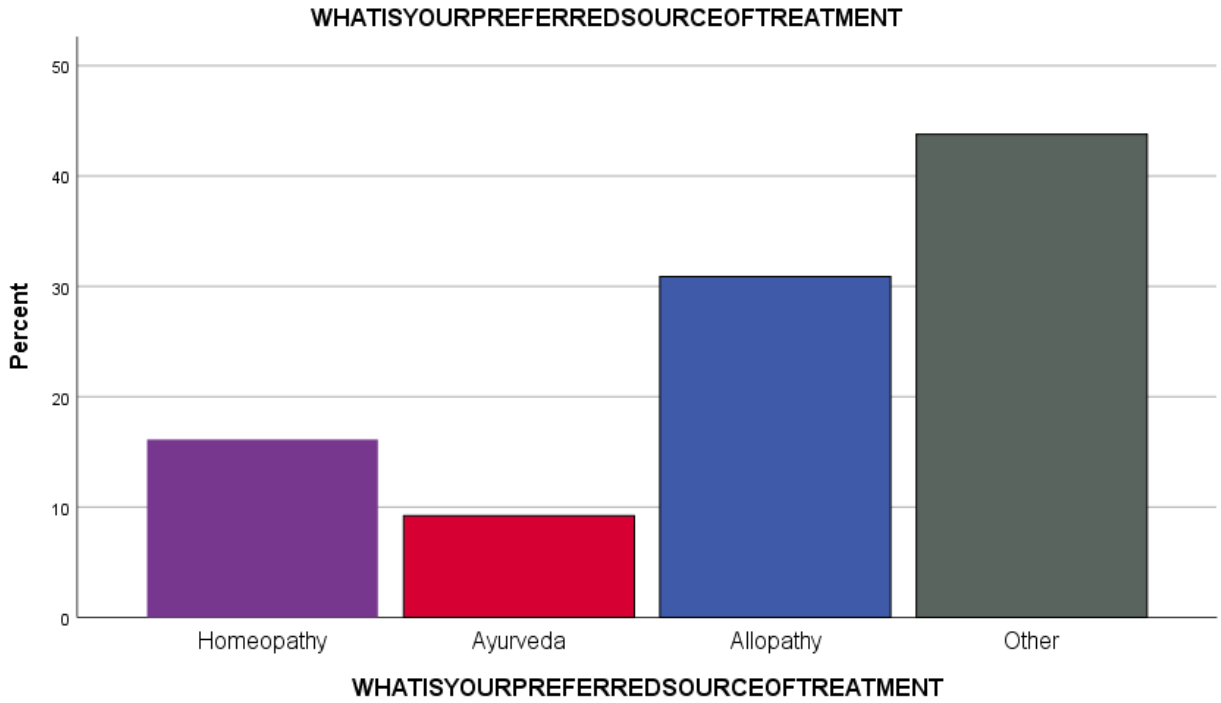
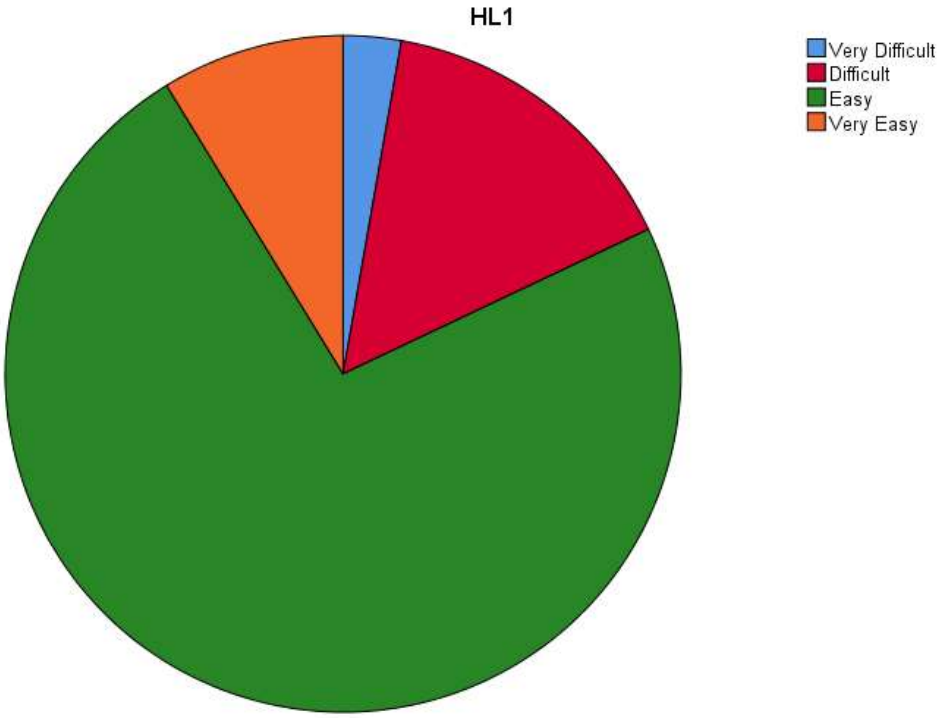
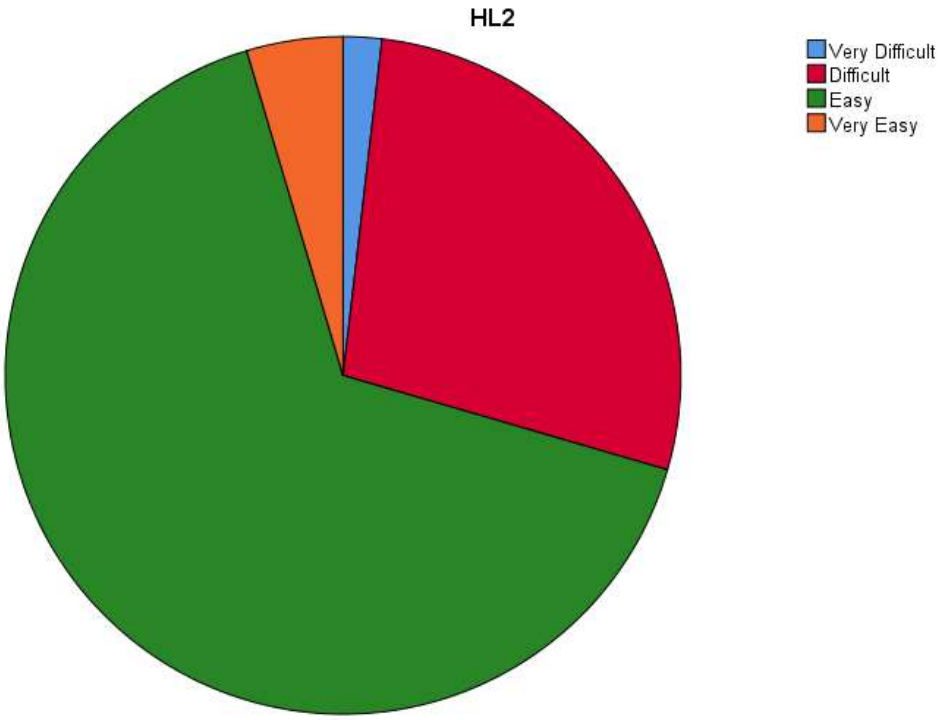
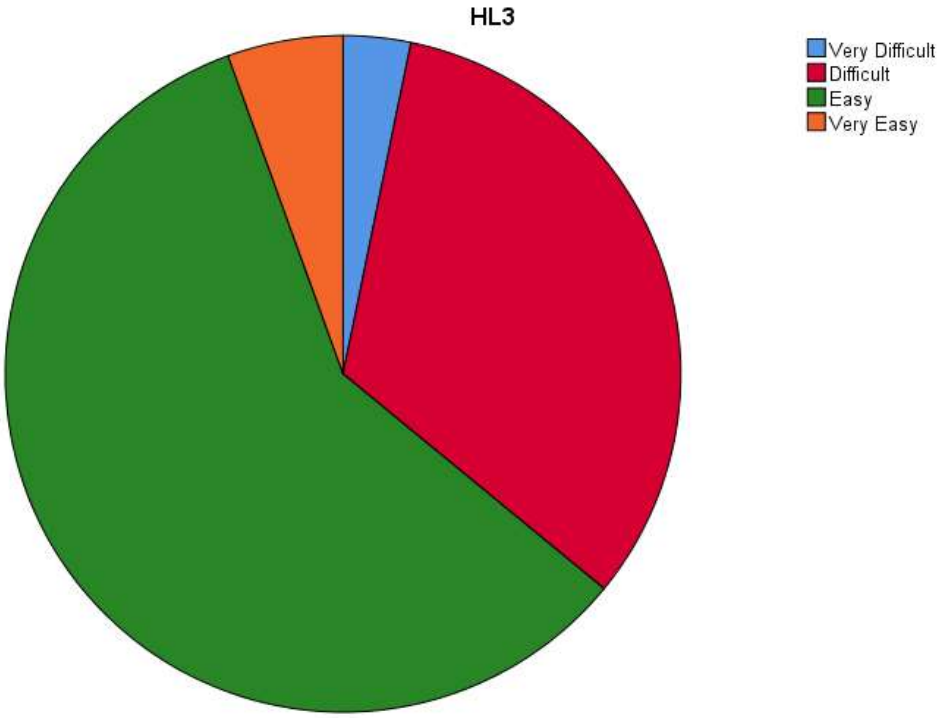


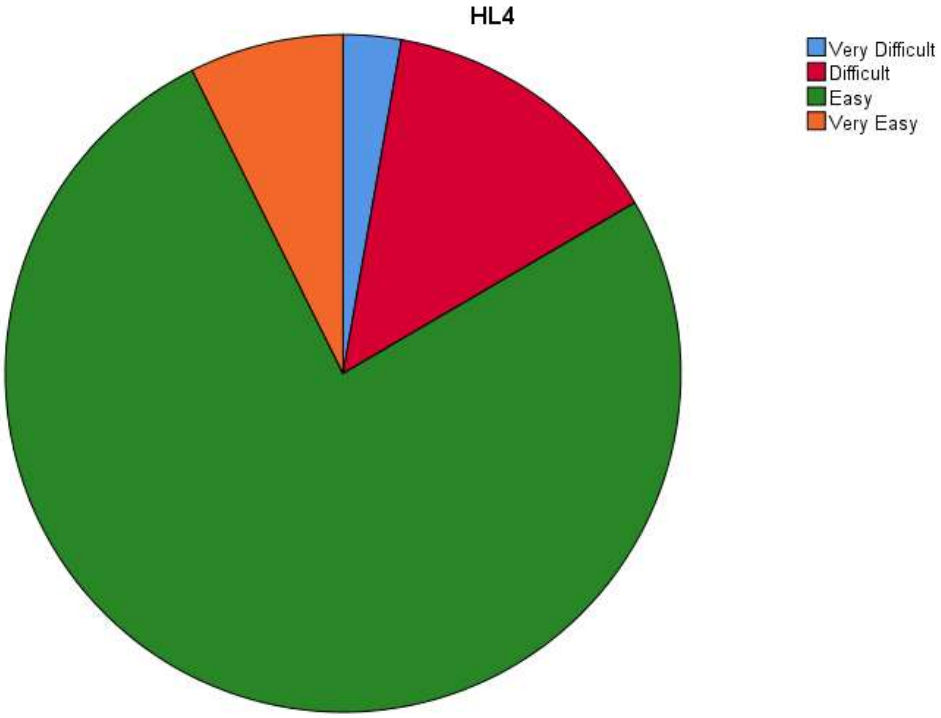
Figure 6 Bar Graph

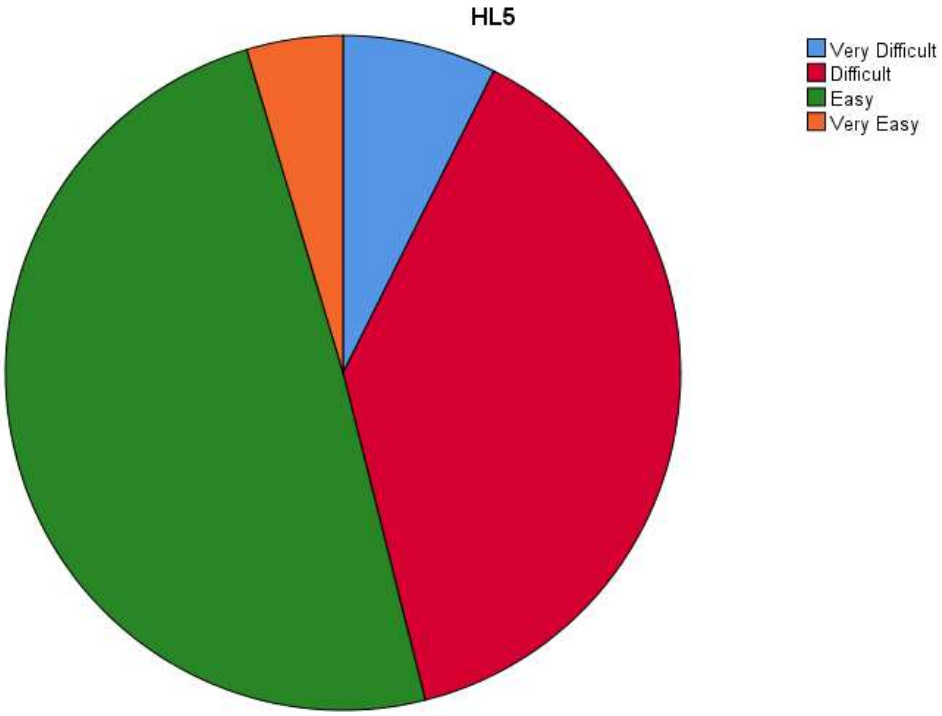


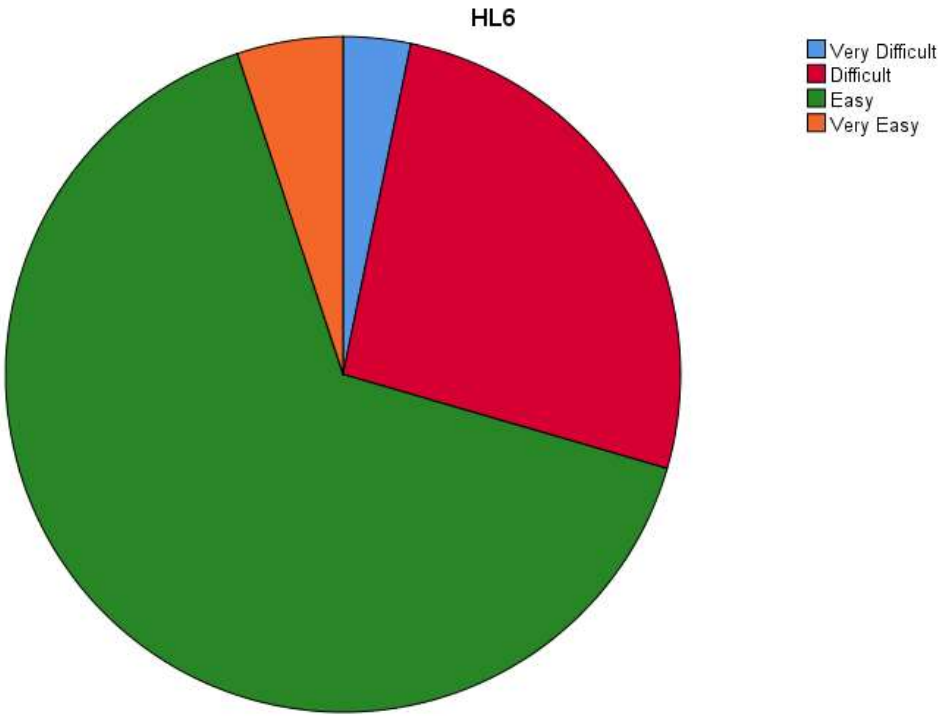

HL1
Very Difficult
Difficult
Easy
Very Easy

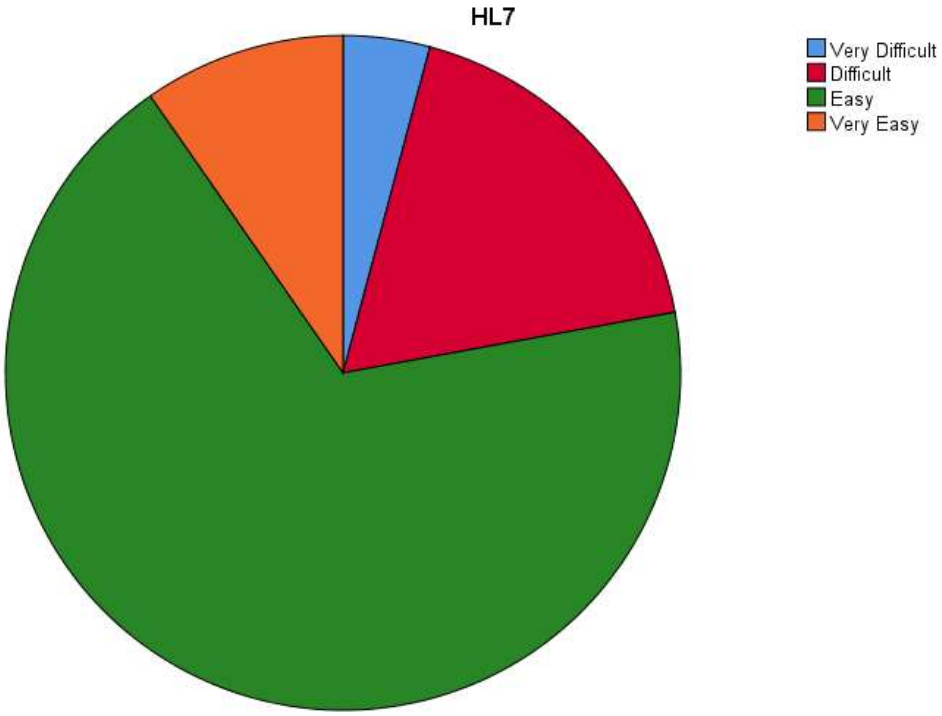

HL2
Very Difficult
Difficult
Easy
Very Easy

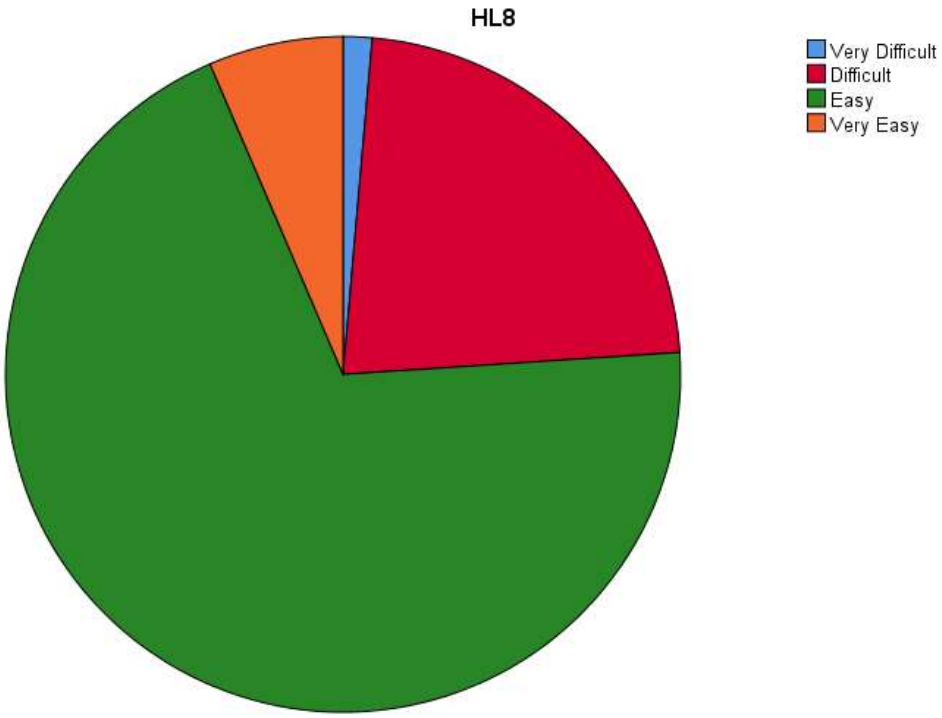

HL3
Very Difficult
Difficult
Easy
Very Easy

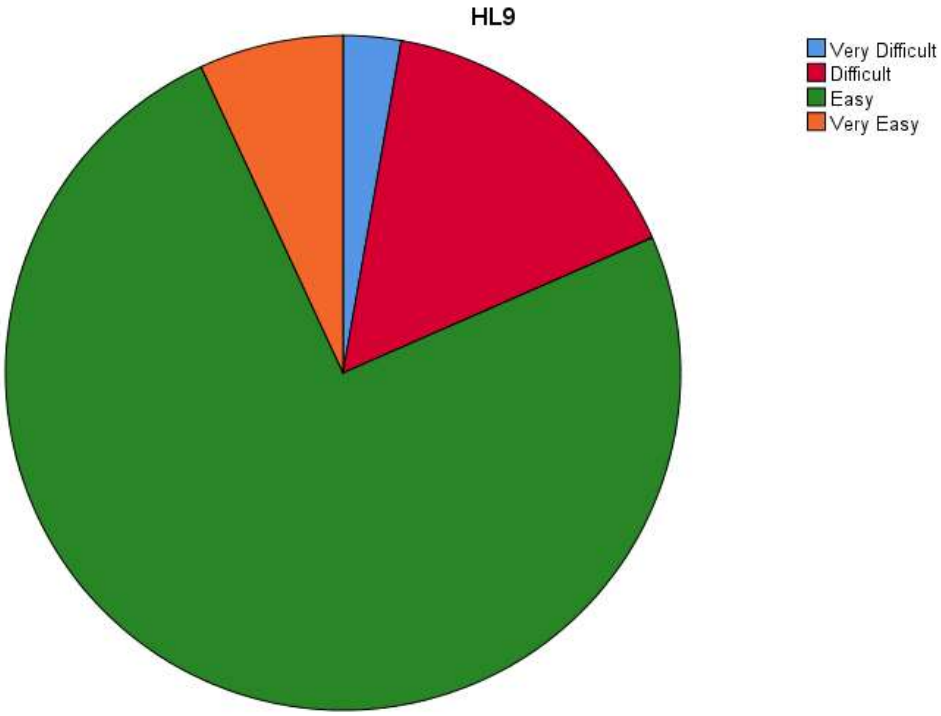

HL4
Very Difficult
Difficult
Easy
Very Easy

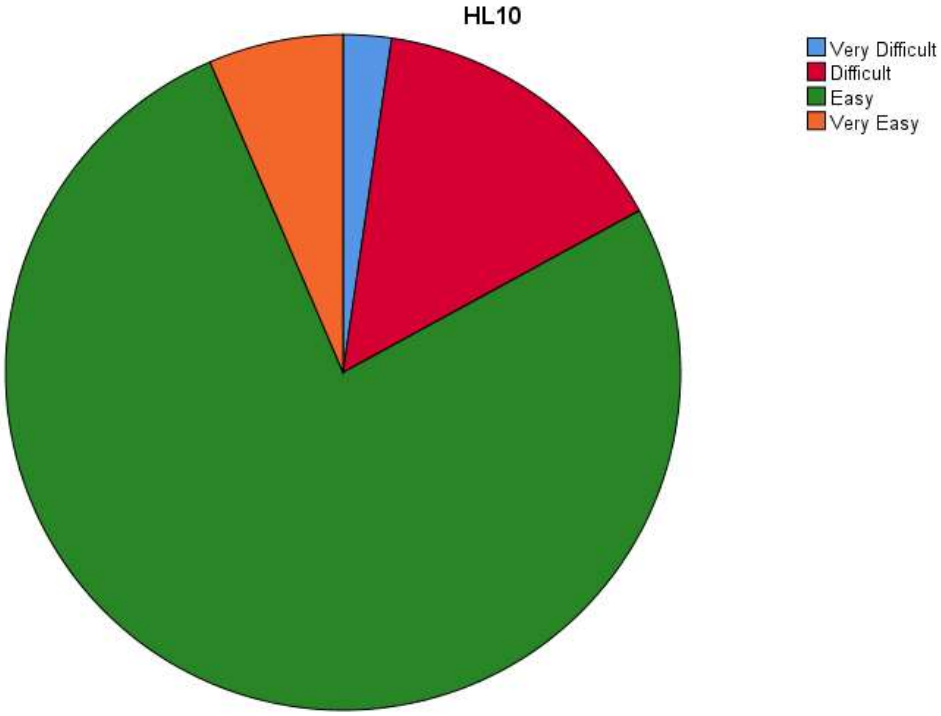

HL5
Very Difficult
Difficult
Easy
Very Easy

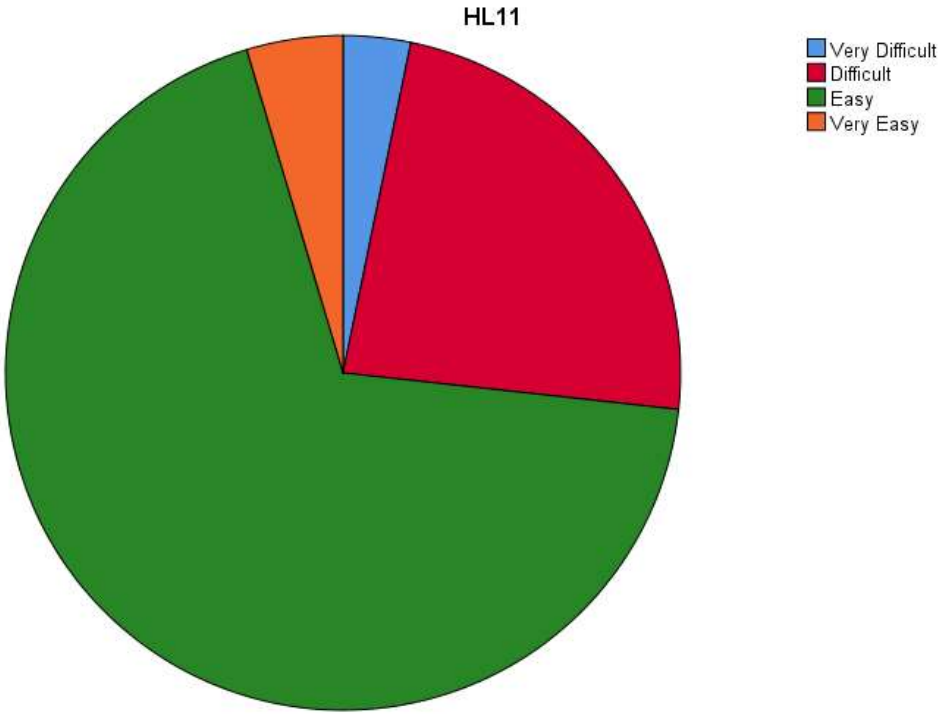

HL6
Very Difficult
Difficult
Easy
Very Easy

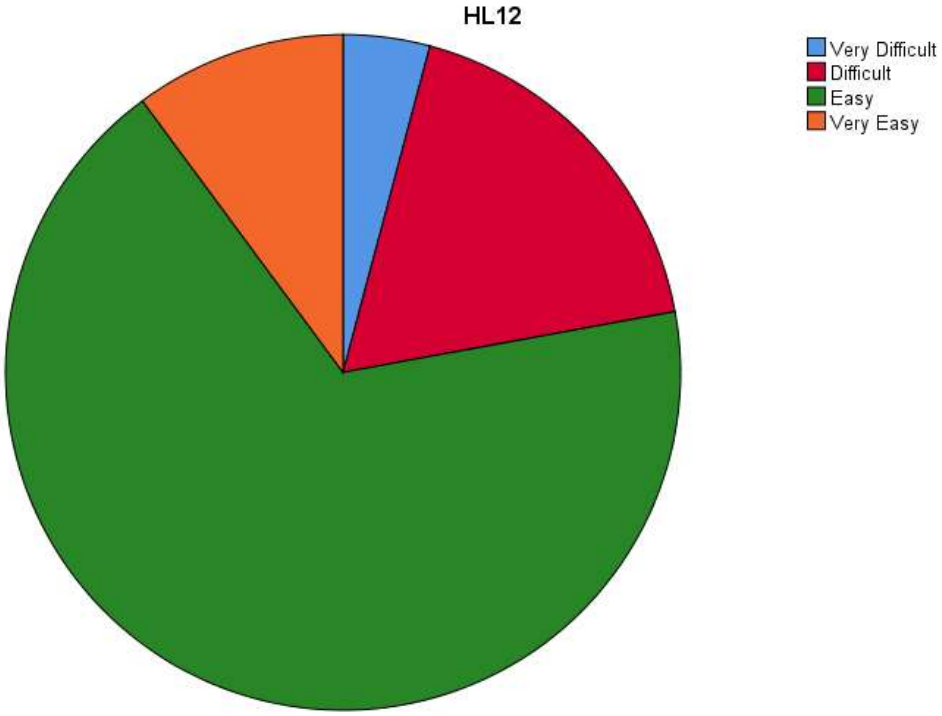

HL7
Very Difficult
Difficult
Easy
Very Easy

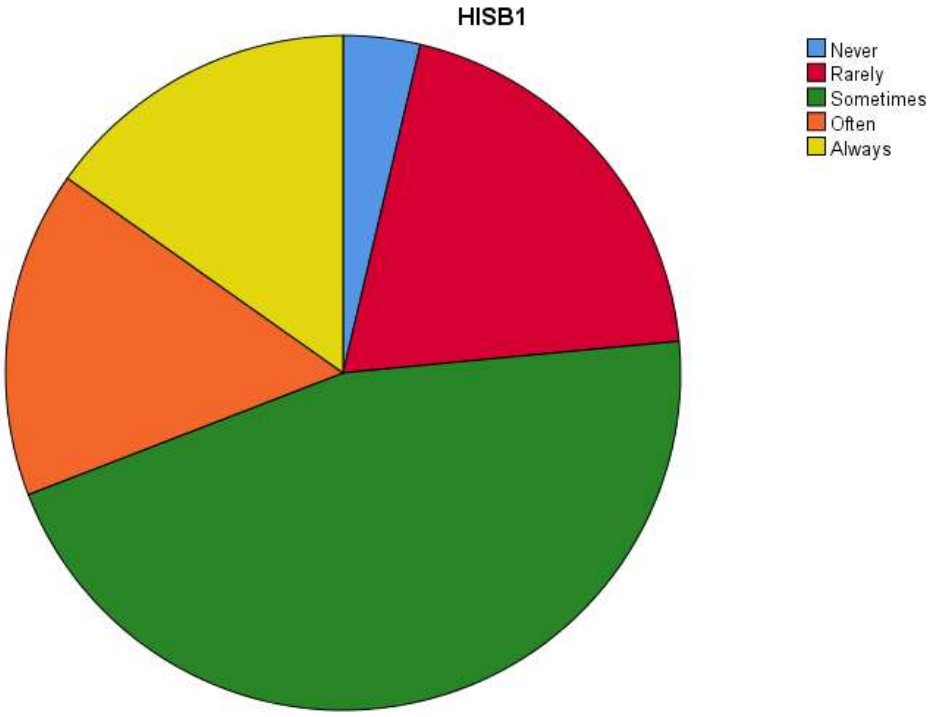

HL8
Very Difficult
Difficult
Easy
Very Easy

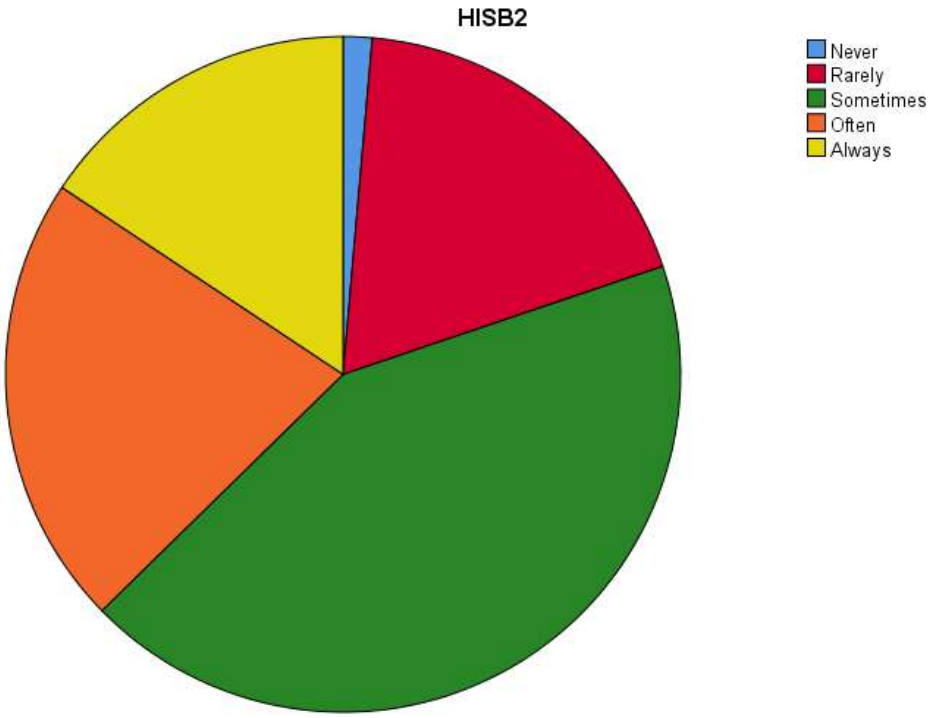

HL9
Very Difficult
Difficult
Easy
Very Easy

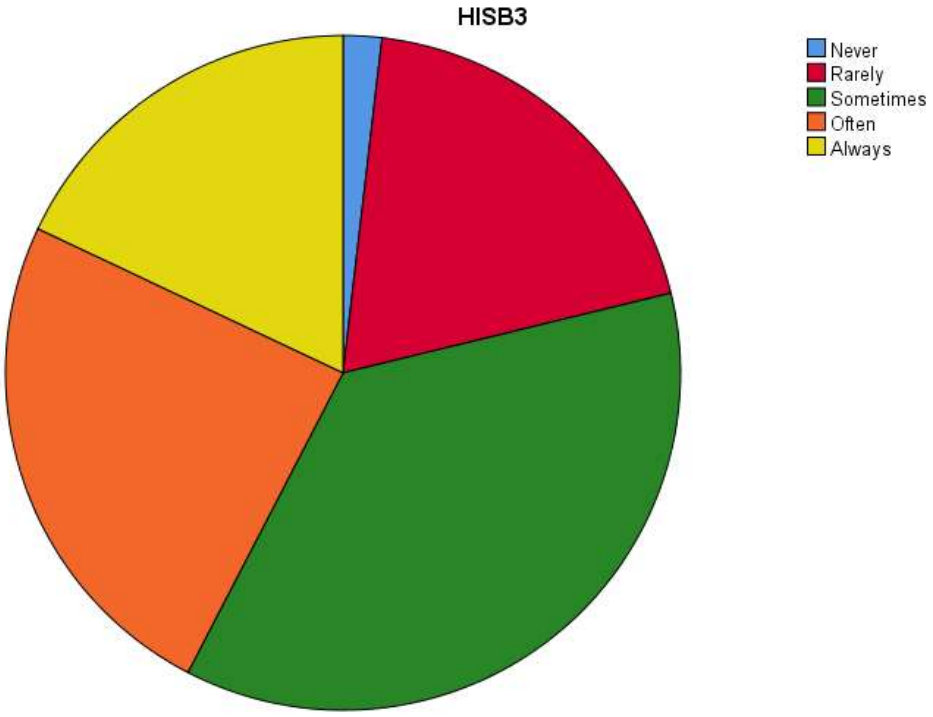

HL10
Very Difficult
Difficult
Easy
Very Easy

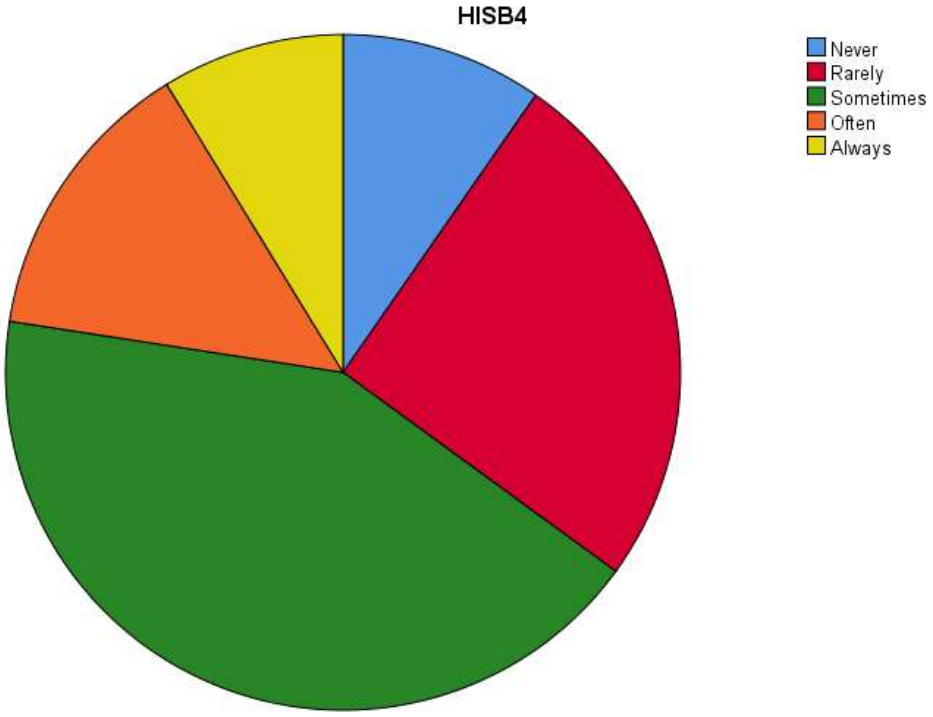

HL11
Very Difficult
Difficult
Easy
Very Easy

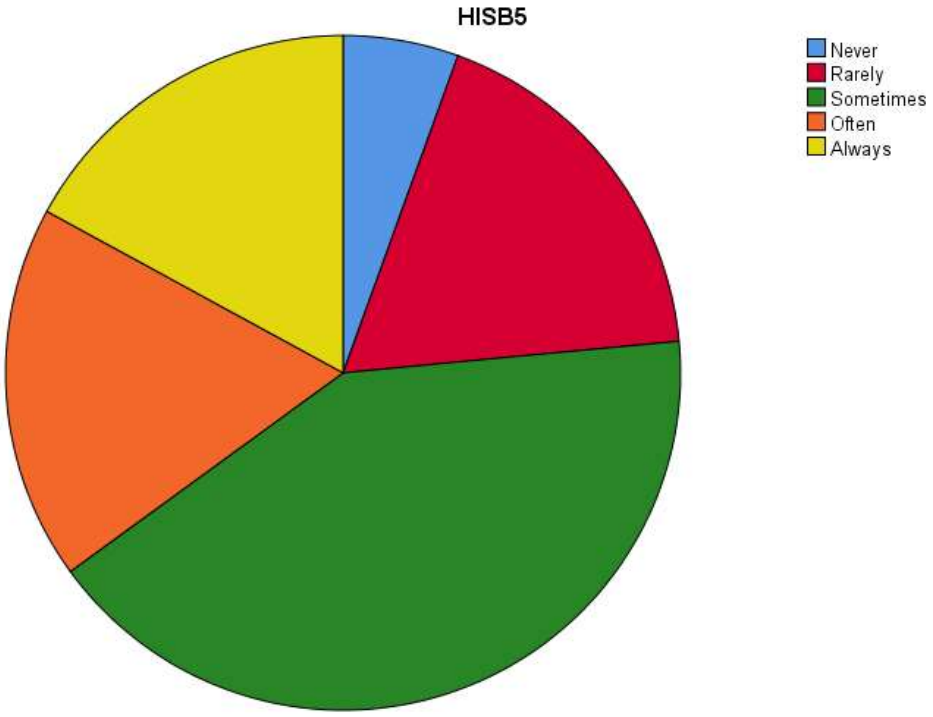

HL12
Very Difficult
Difficult
Easy
Very Easy

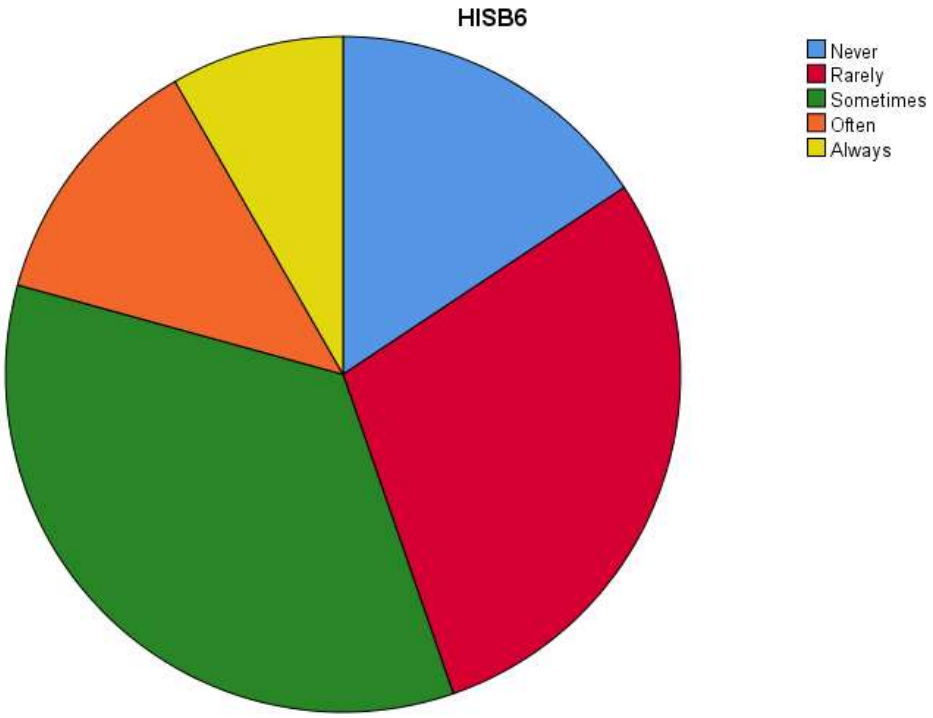

HISB1
Never
Rarely
Sometimes
Often
Always

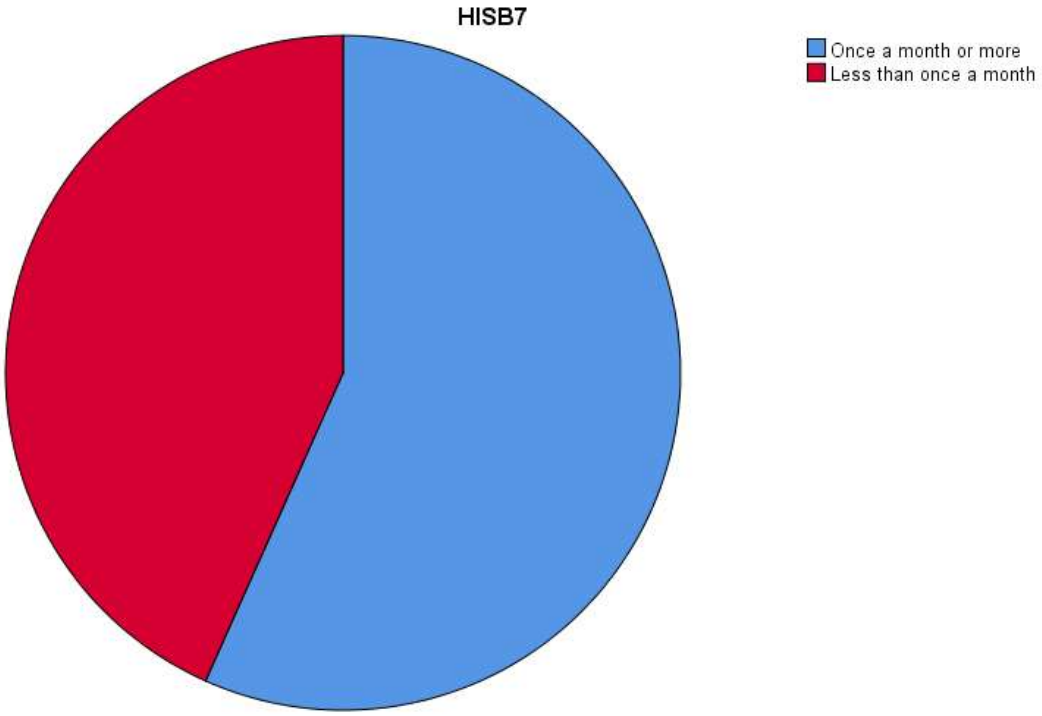

HISB2
Never
Rarely
Sometimes
Often
Always

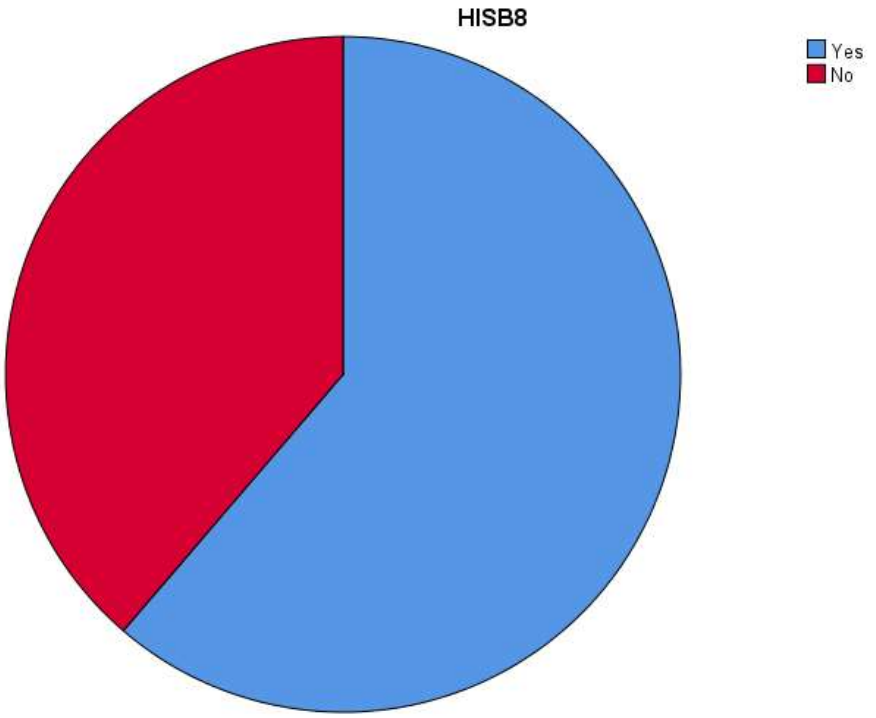

HISB3
Never
Rarely
Sometimes
Often
Always

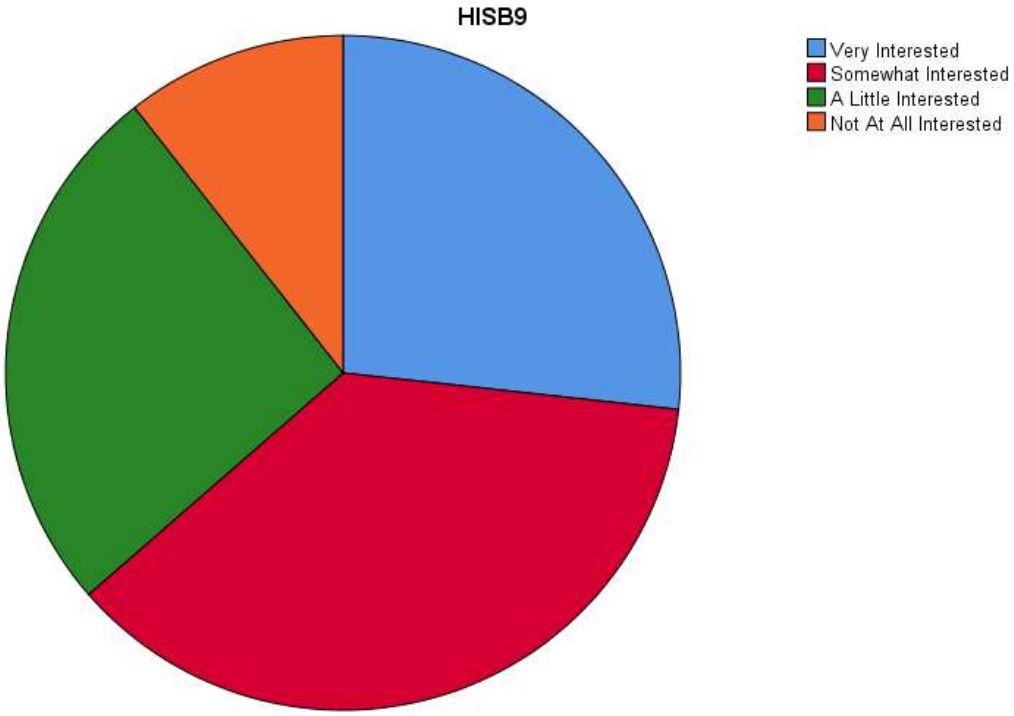

HISB4
Never
Rarely
Sometimes
Often
Always

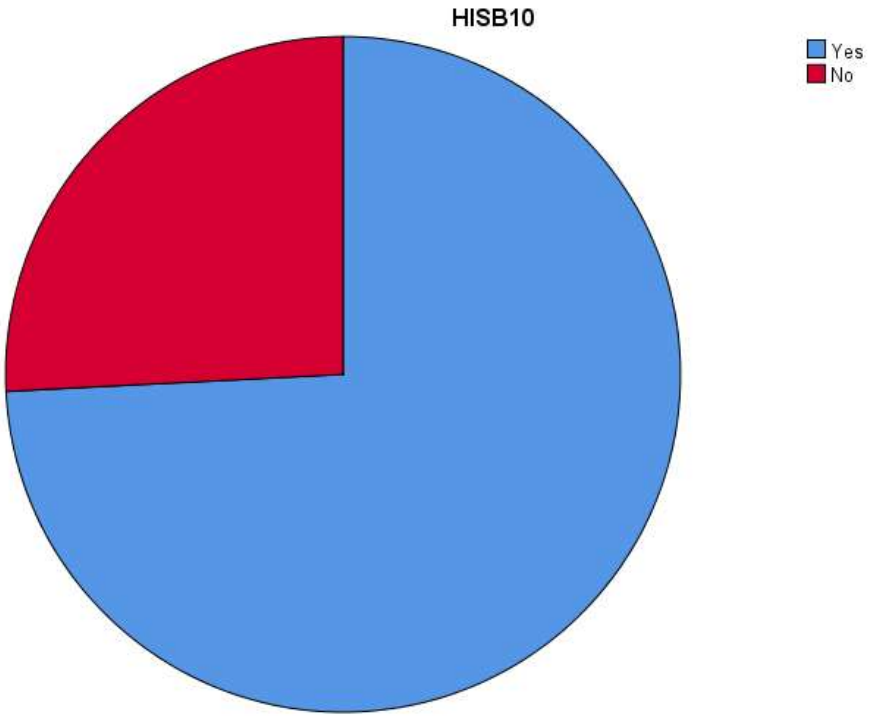

HISB5
Never
Rarely
Sometimes
Often
Always

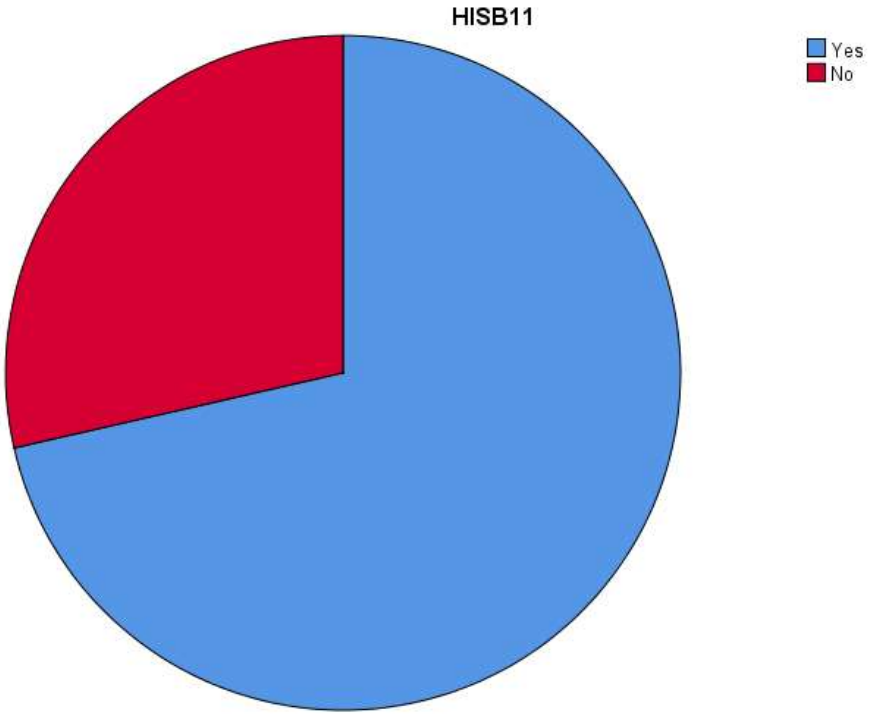

HISB6
Never
Rarely
Sometimes
Often
Always

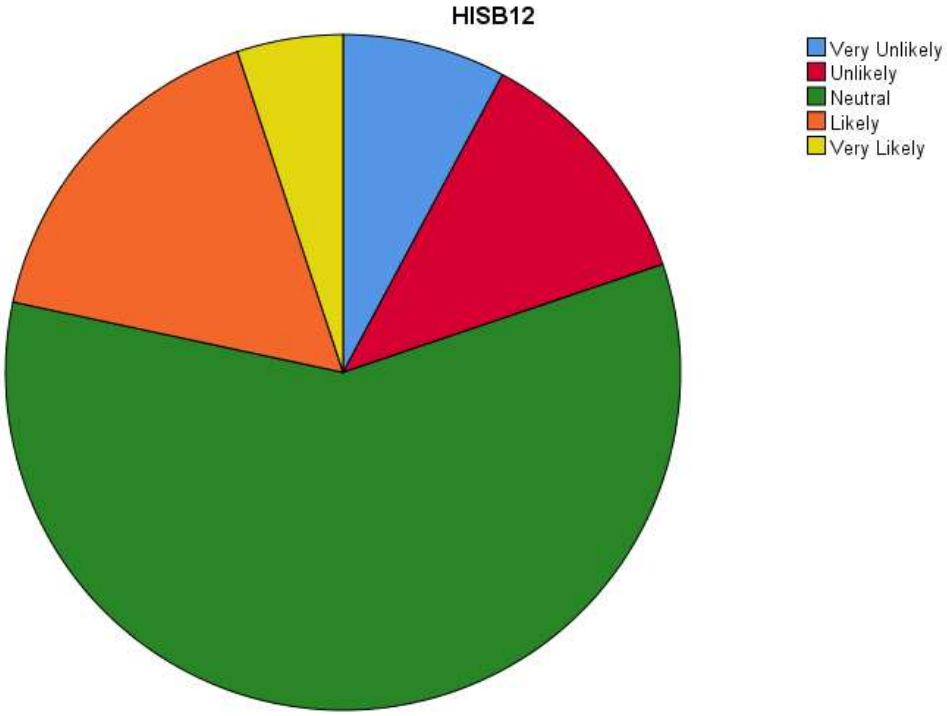

HISB7
Once a month or more
Less than once a month

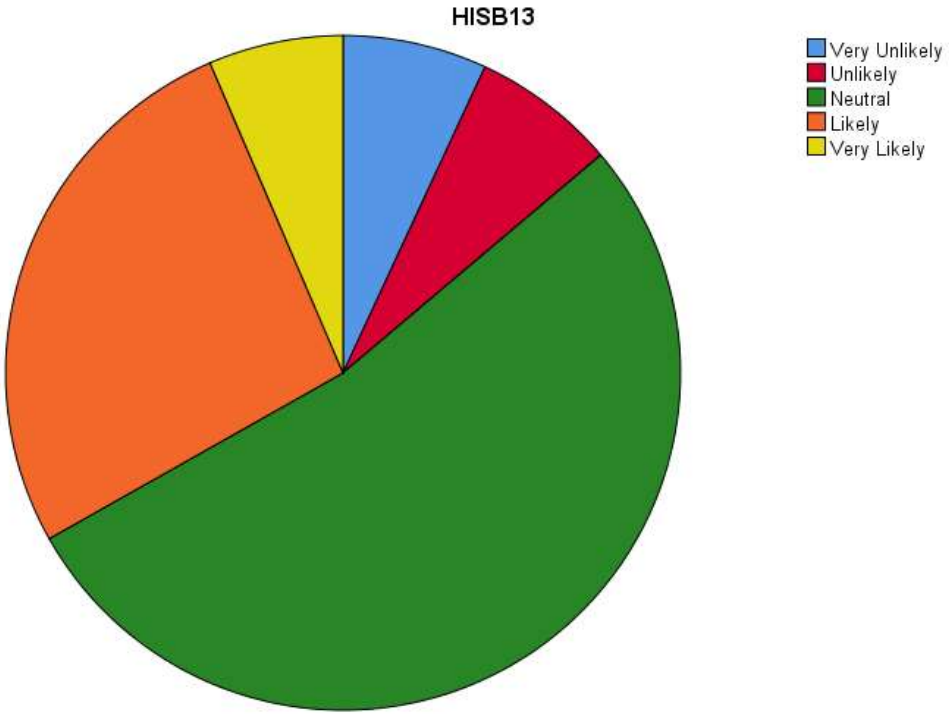

HISB8
Yes
No

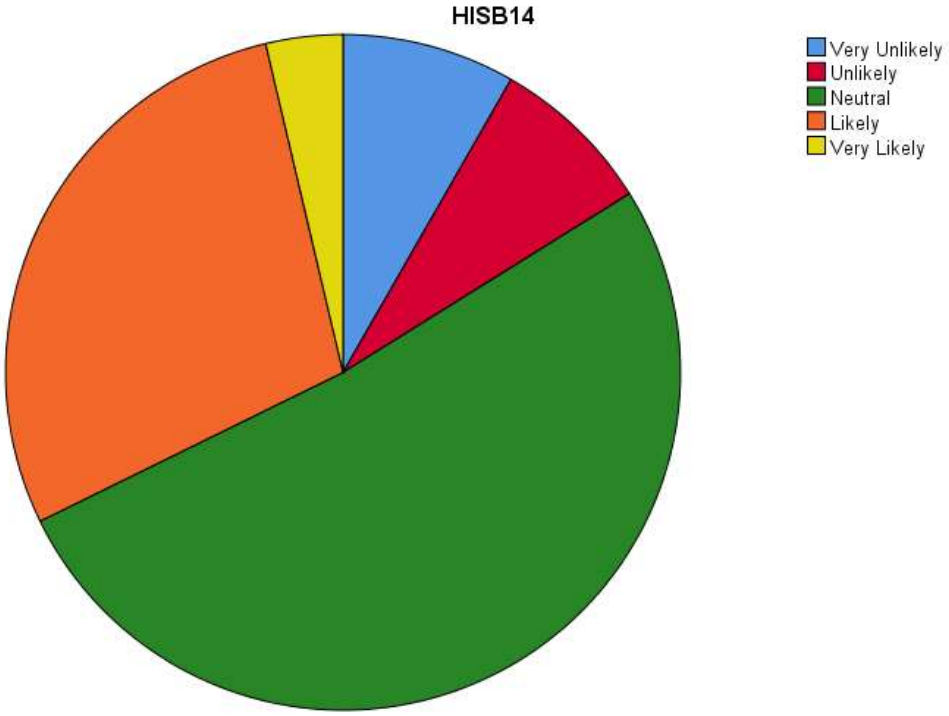

HISB9
Very Interested
Somewhat Interested
A Little Interested
Not At All Interested

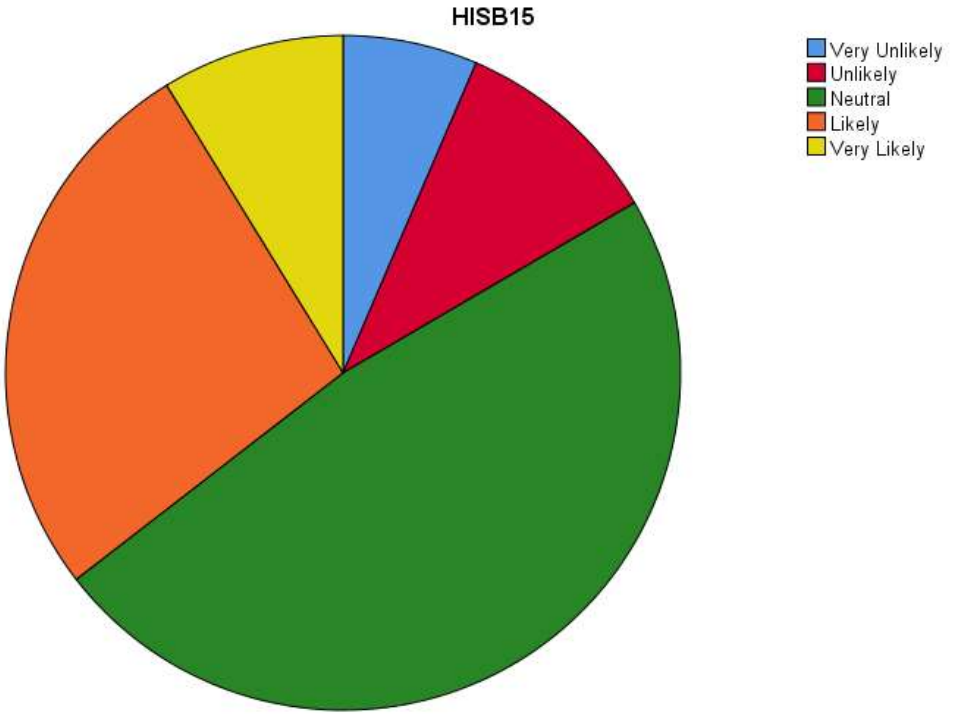

HISB10
Yes
No

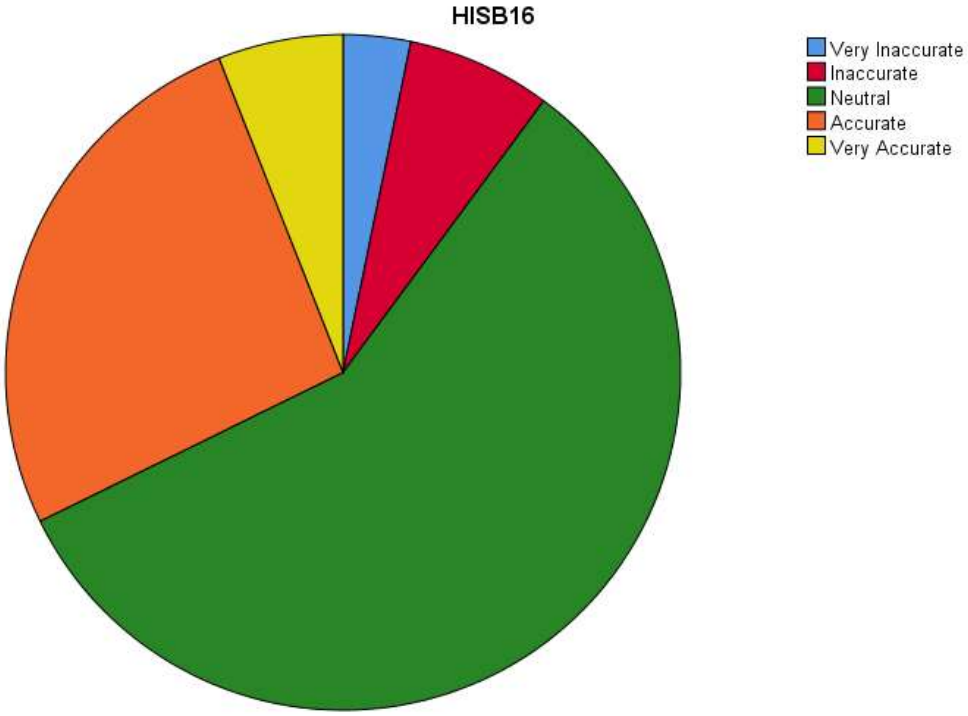

HISB11
Yes
No

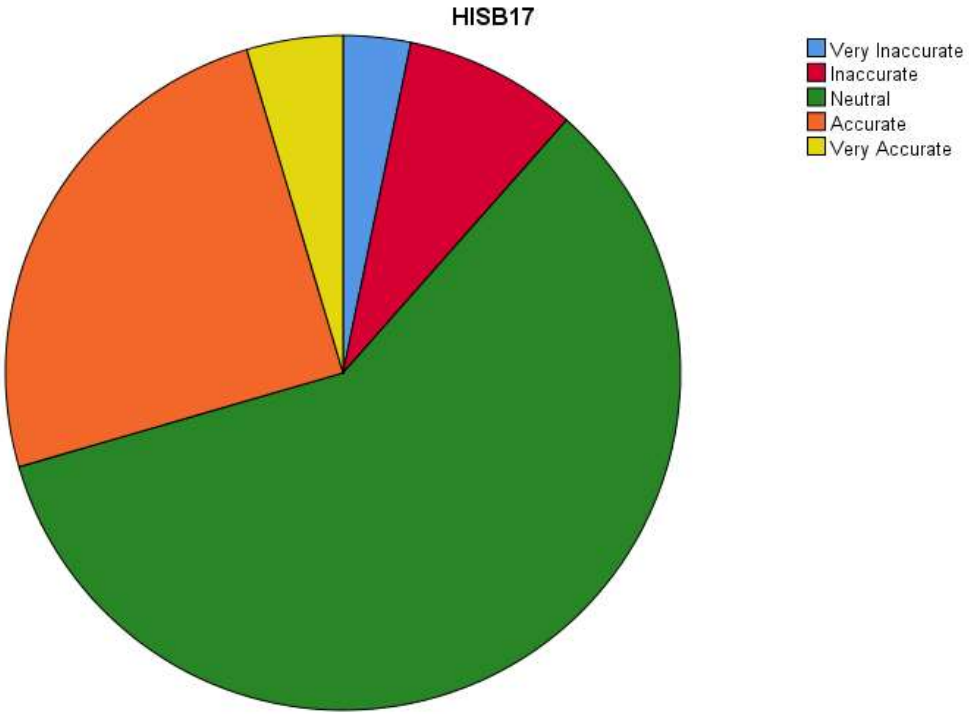

HISB12
Very Unlikely
Unlikely
Neutral
Likely
Very Likely

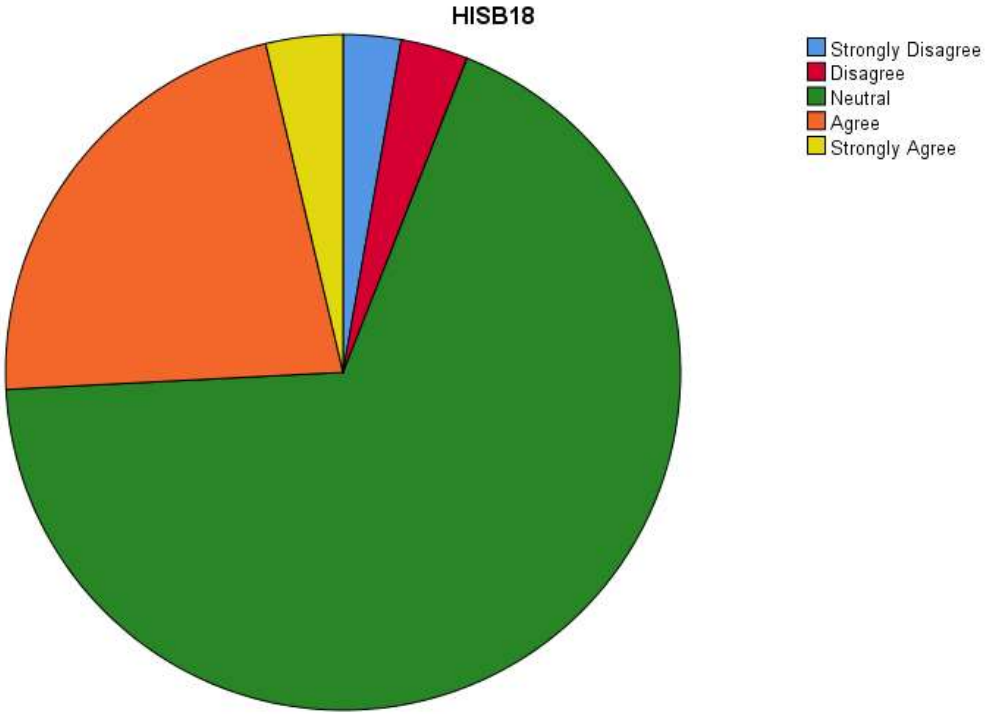

HISB13
Very Unlikely
Unlikely
Neutral
Likely
Very Likely

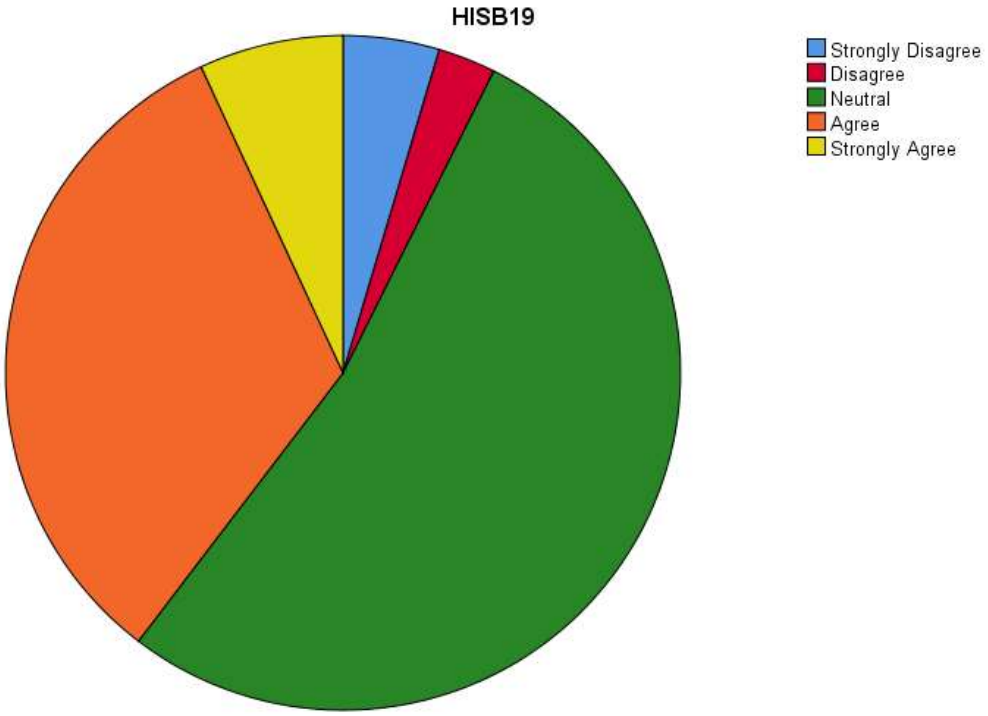

HISB14
Very Unlikely
Unlikely
Neutral
Likely
Very Likely

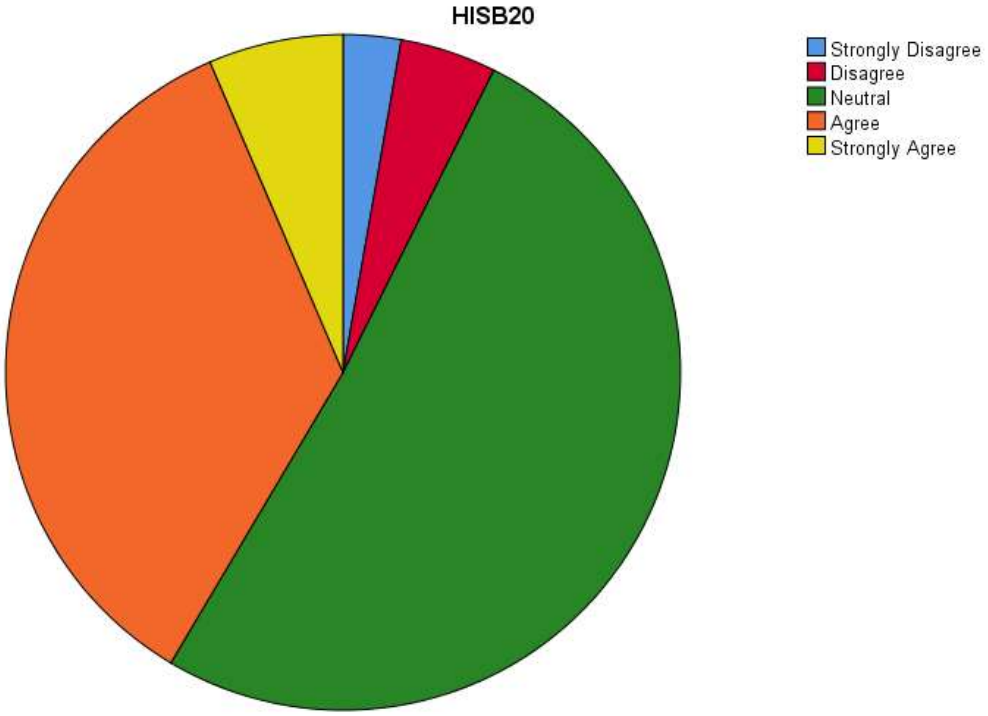

HISB15
Very Unlikely
Unlikely
Neutral
Likely
Very Likely


HISB16
Very Inaccurate
Inaccurate
Neutral
Accurate
Very Accurate


HISB17
Very Inaccurate
Inaccurate
Neutral
Accurate
Very Accurate


HISB18
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree





4.3 Hypothesis 1,

There is statistically significant relationship between health literacy and health information seeking behaviour.

In the tables below shows, a regression analysis that was conducted to find out if health literacy has a significant impact on health information seeking behaviour.

Descriptive Statistics

	Mean	Std. Deviation	N
TOTALHISB	55.0691	7.45417	217
TOTALHL	33.3502	4.41975	217

Note: TOTALHL = Total Health Literacy, TOTALHISB = Total Health Information Seeking Behaviour.

(Source: Field survey 2025)

Table 3 Descriptive Statistics

The table above show the descriptive statistics where, health information seeking behaviour M = 55.0691, std. deviation = 7.45417. Health Literacy M = 33.3502 and the std. deviation = 4.41975. This shows that health information seeking behaviour had a higher mean than health literacy as well as the higher standard deviation.

Model Summary

The results from the model summary shows that r = .269 and r-squared = .073 which shows a low relationship strength.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.269[a]	.073	.068	7.19507	.073	16.837	1	215	.000

a. Predictors: (Constant), TOTALHL

Note: Pearson Correlation = R, Sig = significance (p-value)

Table 4 Model Summary

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	871.633	1	871.633	16.837	.000[b]
	Residual	11130.330	215	51.769		
	Total	12001.963	216			

a. Dependent Variable: TOTALHISB

b. Predictors: (Constant), TOTALHL

Note: df = degree of freedom, F = ratio, Sig = significance (p-value)

(Source: Field Survey 2025)

Table 5 ANOVA

From the ANOVA table above, p = .000 which is less than the commonly used threshold of 0.05, suggesting that the relationship between the variables is statistically significant.

Coefficients

Variables		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	39.911	3.726		10.711	.000
	TOTALHL	.455	.111	.269	4.103	.000

a. Dependent Variable: TOTALHISB

Note: B = unstandardized, SE = standard error, SCB = Beta, Sig. P = significance.

Table 6 Coefficients

The health information seeking behaviour sig. (p) = .000 which is less than .05. For the predictor variable (TotalHL), the significance value is .000, which is less than .05. This suggests that the coefficient for

TotalHL is statistically significant. This means predictor variable has a significant association on the dependent variable after controlling for other factors in the model.

4.3.1 Hypothesis 2

There is a statistically significant difference among age groups and health literacy.

Descriptives

TOTALHL

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
17 – 22	170	32.9588	4.09554	.31411	32.3387	33.5789	15.00	42.00
23 – 27	31	34.2903	6.23535	1.11990	32.0032	36.5775	21.00	48.00
28 – 32	9	36.2222	2.53859	.84620	34.2709	38.1736	33.00	41.00
33 – 39	6	35.0000	2.00000	.81650	32.9011	37.0989	32.00	38.00
40 or more	1	35.0000	.	.	.	.	35.00	35.00
Total	217	33.3502	4.41975	.30003	32.7589	33.9416	15.00	48.00

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
TOTALHL	Based on Mean	4.308	3	212	.006
	Based on Median	3.896	3	212	.010
	Based on Median and with adjusted df	3.896	3	190.621	.010
	Based on trimmed mean	4.236	3	212	.006

Note: df = degree of freedom, F = ratio, Sig = significance(p-value).

(Source Field Survey 2025)

ANOVA

TOTALHL

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	146.728	4	36.682	1.909	.110
Within Groups	4072.654	212	19.211		
Total	4219.382	216			

Note: df = degree of freedom, F = ratio, Sig = significance(p-value).

(Source Field Survey 2025)

The one-way ANOVA was used to test if there is a significant difference in the "TotalHL" variable across different age groups. The ANOVA results are as follows: Between Groups: The sum of squares (SS) for the between groups is 146.728, with 4 degrees of freedom (df) and a mean square of 36.682. The F-statistic is 1.909 with a p-value of .110, indicating that there is no significant difference in "TotalHL" across age groups. Within Groups: The sum of squares (SS) for the within groups is 4072.654, with 212 degrees of freedom (df) and a mean square of 19.211.

Total: The total sum of squares (SS) is 4219.382 with 216 degrees of freedom (df). In summary, the one-way ANOVA suggests that there is no significant difference in "TotalHL" across the age groups (17-22, 23-27, 28-32, 33-39 and 40 or more).

4.3.2 Hypothesis 3

There is a statistically significant difference among age groups and health information seeking behaviour.

Descriptives

TOTALHISB

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
17 – 22	170	54.5529	7.19139	.55155	53.4641	55.6418	29.00	77.00
23 – 27	31	56.7097	8.20241	1.47320	53.7010	59.7183	40.00	81.00
28 – 32	9	54.2222	7.54615	2.51538	48.4217	60.0227	43.00	68.00
33 – 39	6	60.5000	8.16701	3.33417	51.9293	69.0707	50.00	70.00
40 or more	1	67.0000	.	.	.	.	67.00	67.00
Total	217	55.0691	7.45417	.50602	54.0718	56.0665	29.00	81.00

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
TOTALHISB	Based on Mean	.729	3	212	.536
	Based on Median	.727	3	212	.537
	Based on Median and with adjusted df	.727	3	211.304	.537
	Based on trimmed mean	.725	3	212	.538

ANOVA

TOTALHISB

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	454.497	4	113.624	2.086	.084
Within Groups	11547.466	212	54.469		
Total	12001.963	216			

Note: df = degree of freedom, F = ratio, Sig = significance(p-value).

(Source Field Survey 2025)

The one-way ANOVA was used to test if there is a significant difference in the "TotalHISB" variable across different age groups. The ANOVA results are as follows: Between Groups: The sum of squares (SS) for the between groups is 454.497, with 4 degrees of freedom (df) and a mean square of 113.624. The F-statistic is 2.086 with a p-value of .084, indicating that there is no significant difference in "TotalHISB" across age groups. Within Groups: The sum of squares (SS) for the within groups is 11547.466, with 212 degrees of freedom (df) and a mean square of 54.469.

Total: The total sum of squares (SS) is 12001.963 with 216 degrees of freedom (df). In summary, the one-way ANOVA suggests that there is no significant difference in "TotalHISB" across the age groups (17-22, 23-27, 28-32, 33-39 and 40 or more).

4.3.3 Hypothesis 4

There is a statistically significant relationship between sex (female and male) in relation to health literacy.

In the tables below show, an independent sample t-test was conducted to find out if there is a significant difference among sex in relation to health literacy.

Group Statistics

	SEX	N	Mean	Std. Deviation	Std. Error Mean
TOTALHL	MALE	80	34.0500	3.57169	.39933
	FEMALE	137	32.9416	4.81231	.41114

Note: N = number of observations.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	Df
TOTALHL	Equal variances assumed	6.889	.009	1.791	215
	Equal variances not assumed			1.934	202.852

Note: df = degree of freedom, F = ratio, Sig = significance(p-value), t = t-test statistics.

(Source Field Survey 2025)

Independent Samples T-Test: The t-test results indicate that there is a significant difference in the mean scores of "TotalHL" between males and females. The t-value is 1.791, with 215 degrees of freedom (df), and the p-value is .009, which is less than .05 In summary, the independent samples t-test suggests that there is significant difference in the mean scores of "TotalHL" between males and females.

4.3.4 Hypothesis 5

There is a statistically significant relationship between sex (female and male) in relation to health literacy and health information seeking behaviour.

In the tables below shows, an independent sample t-test was conducted to find out if there is a significant difference among sex in relation to health information seeking behaviour.

Group Statistics

	SEX	N	Mean	Std. Deviation	Std. Error Mean
TOTALHISB	MALE	80	55.4500	7.47976	.83626
	FEMALE	137	54.8467	7.45762	.63715

Note: N = number of observations.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	Df
TOTALHISB	Equal variances assumed	.496	.482	.574	215
	Equal variances not assumed			.574	165.034

Note: df = degree of freedom, F = ratio, Sig = significance(p-value), t = t-test statistics.

(Source Field Survey 2025)

Independent Samples T-Test: The t-test results indicate that there is no significant difference in the mean scores of "TotalHISB" between males and females. The t-value is .574, with 215 degrees of freedom (df), and the p-value is .482, which is greater than .05 In summary, the independent samples t-test suggests that there no significant difference in the mean scores of "TotalHISB" between males and females.

4.3.5 Hypothesis 6

There is a statistically significant relationship between having a close family member who is a health professional and health literacy.

In the tables below shows, an independent t-test analysis that was conducted to find out if having a close relative in the health profession has a significant impact on health literacy.

Group Statistics

	DOYOUHAVEACLOSEFAMILYMEMBERINTHEHEALTHPROFESSION	N	Mean	Std. Deviation	Std. Error Mean
TOTALHL	Yes	107	33.6355	4.79267	.46332
	No	110	33.0727	4.02677	.38394

Note: N = number of observations.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	T	Df
TOTALHL	Equal variances assumed	.675	.412	.938	215
	Equal variances not assumed			.935	206.751

Note: df = degree of freedom, F = ratio, Sig = significance(p-value), t = t-test statistics.

(Source Field Survey 2025)

Independent Samples T-Test: The t-test results indicate that there is no significant difference in the mean scores of "TotalHL" between those who answered Yes and No. The t-value is .938, with 215 degrees of freedom (df), and the p-value is .412, which is greater than .05 In summary, the independent samples t-test suggests that there no significant difference in the mean scores of "TotalHL" between Having a close family member in the health profession or not.

4.3.6 Hypothesis 7

There is a statistically significant relationship between having a close family member who is a health professional and health information seeking behaviour.

In the tables below shows, an independent t-test analysis that was conducted to find out if having a close relative in the health profession has a significant impact on health information seeking behaviour.

Group Statistics

	DOYOUHAVEACLOSEFAMILYMEMBERINTHEHEALTHPROFESSION	N	Mean	Std. Deviation	Std. Error Mean
TOTALHISB	Yes	107	55.7944	8.01971	.77530
	No	110	54.3636	6.82242	.65049

Note: N = number of observations.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	Df
TOTALHISB	Equal variances assumed	1.596	.208	1.417	215
	Equal variances not assumed			1.414	207.683

Note: df = degree of freedom, F = ratio, Sig = significance(p-value), t = t-test statistics.

(Source Field Survey 2025)

Independent Samples T-Test: The t-test results indicate that there is no significant difference in the mean scores of "TotalHISB" between those who answered Yes and No. The t-value is 1.417, with 215 degrees of freedom (df), and the p-value is .208, which is greater than .05 In summary, the independent samples t-test suggests that there no significant difference in the mean scores of "TotalHISB" between Having a close family member in the health profession or not.

4.3.7 Hypothesis 8,

There is statistically significant relationship between program of study and health literacy.

In the tables below shows, a regression analysis that was conducted to find out if program of study has a significant impact on health literacy.

Descriptive Statistics

	Mean	Std. Deviation	N
TOTALHL	33.3502	4.41975	217
PROGRAMOFSTUDY	5.19	2.194	217

Note: TOTALHL = Total Health Literacy.

(Source: Field survey 2025)

The table above show the descriptive statistics where, health literacy M = 33.3502, std. deviation = 4.41975. Program of Study M = 5.19 and the std. deviation = 2.194. This shows that health literacy had a higher mean than program of study as well as the higher standard deviation.

Model Summary

The results from the model summary shows that r = .188 and r-squared = .035 which shows a low strength relationship.

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.188[a]	.035	.031	4.35106	.035	7.874	1	215	.005

a. Predictors: (Constant), PROGRAMOFSTUDY

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	149.064	1	149.064	7.874	.005[b]
	Residual	4070.319	215	18.932		
	Total	4219.382	216			

a. Dependent Variable: TOTALHL

b. Predictors: (Constant), PROGRAMOFSTUDY

Note: df = degree of freedom, F = ratio, Sig = significance (p-value)

(Source: Field Survey 2025)

From the ANOVA table above, p = .005 which is less than the commonly used threshold of 0.05, suggesting that the relationship between the variables is statistically significant.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	35.317	.760		46.441	.000
	PROGRAMOFSTUDY	-.379	.135	-.188	-2.806	.005

a. Dependent Variable: TOTALHL

Note: B = unstandardized, SE = standard error, SCB = Beta, Sig. P = significance.

For the predictor variable (PROGRAM OF STUDY), the significance value is .005, which is less than .05. This suggests that the coefficient PROGRAM OF STUDY is statistically significant. This means predictor variable has a significant impact on the dependent variable after controlling for other factors in the model.

4.3.8 Hypothesis 9,

There is statistically significant relationship between program of study and health literacy.

In the tables below shows, a regression analysis that was conducted to find out if program of study has a significant impact on health information seeking behaviour.

Descriptive Statistics

	Mean	Std. Deviation	N
TOTALHISB	55.0691	7.45417	217
PROGRAMOFSTUDY	5.19	2.194	217

Note: TOTALHISB = Total Health Information Seeking Behaviour.

(Source: Field survey 2025)

The table above show the descriptive statistics where, health information seeking behaviour M = 55.0691, std. deviation = 7.45417. Program of Study M = 5.19 and the std. deviation = 2.194. This shows that health literacy had a higher mean than program of study as well as the higher standard deviation.

Model Summary

The results from the model summary shows that r = .178 and r-squared = .032 which shows a low strength relationship.

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.178[a]	.032	.027	7.35252	.032	7.013	1	215	.009

a. Predictors: (Constant), PROGRAMOFSTUDY

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	379.146	1	379.146	7.013	.009[b]
	Residual	11622.818	215	54.060		
	Total	12001.963	216			

a. Dependent Variable: TOTALHISB

b. Predictors: (Constant), PROGRAMOFSTUDY

Note: df = degree of freedom, F = ratio, Sig = significance (p-value)

(Source: Field Survey 2025)

From the ANOVA table above, p = .009 which is less than the commonly used threshold of 0.05, suggesting that the relationship between the variables is statistically significant.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	58.205	1.285		45.294	.000
	PROGRAMOFSTUDY	-.604	.228	-.178	-2.648	.009

a. Dependent Variable: TOTALHISB

Note: B = unstandardized, SE = standard error, SCB = Beta, Sig. P = significance.

For the predictor variable (PROGRAM OF STUDY), the significance value is .009, which is less than .05. This suggests that the coefficient PROGRAM OF STUDY is statistically significant. This means predictor variable has a significant impact on the dependent variable after controlling for other factors in the model.

CHAPTER V

CONCLUSION

5.1 Introduction

The final chapter of this study provides a comprehensive summary of the entire research work, encompassing chapters one through four. It offers an overview of the research problem, objectives, methodology employed, and the findings obtained throughout the study. This chapter draws conclusions based on the study's findings and presents recommendations for relevant institutions to take appropriate actions based on these conclusions.

5.2 Summary

Hypotheses	Supported/ Not supported

There is a statistically significant relationship between health literacy and health information seeking behaviour.	Supported
There is a statistically significant relationship between age groups in relation to health literacy.	Not Supported
There is a statistically significant relationship between age groups in relation to health information seeking behaviour.	Not Supported
There is a statistically significant relationship between sex (female and male) in relation to health literacy.	Supported
There is a statistically significant relationship between sex (female and male) in relation to health information seeking behaviour.	Supported
There is a statistically significant relationship between having a close family member who is a health professional and health literacy.	Not Supported
There is a statistically significant relationship between having a close family member who is a health professional and health information seeking behaviour.	Not Supported
There is statistically significant relationship between program of study and health literacy.	Supported
There is statistically significant relationship between program of study and health information seeking behaviour.	Supported

The main purpose of the study was to explore the impact of health literacy on health information seeking behaviour among Uttaranchal college of health science students. This study explored the influence of sex, age, having a close family member in the health profession and program of study on health literacy and health information seeking behaviour. The sample comprised of 217 uttaranchal college of health science undergraduate and master students. Nine hypotheses were tested and four were not supported whiles five where supported. The findings indicated that there is no significant between age and having a close family member in the health profession as far as health literacy and health information seeking behaviour is concerned. This result may be due to the study population as the sample used consist of health science students with knowledge on health and health information seeking behaviour.

5.3 Recommendation

University students face unique health challenges, including mental health issues, substance use, sexual health risks and lifestyle-related diseases [30]. Higher levels of health literacy have been associated with better health outcomes, increased engagement in health-promoting behaviours, and enhanced ability to navigate health care systems [31]. Conversely, low health literacy can lead to misunderstandings of health information, poor health choices, and adverse health outcomes [32].

Given the implications of health literacy on health outcomes, universities must prioritise health literacy initiatives. Strategies may include:

- **Curriculum Integration:** Incorporating health literacy into academic programs can enhance the knowledge and skills necessary for effective health management.
- **Workshops and Training:** Offering targeted workshops to address specific health literacy gaps can empower students to make informed health decisions [33].
- **Utilisation of Technology:** Developing mobile applications and online resources tailored to student needs can foster improved health literacy among tech-savvy youth [34].
- **Peer Education Programs:** Leveraging peers as educators is a promising approach, as students often relate better to information shared by fellow students.

Future research is needed to evaluate the effectiveness of different interventions and to identify best practices for fostering health literacy among diverse student populations. By prioritizing health literacy, universities can support students in navigating their health-related decisions, ultimately leading to better health outcomes and a healthier campus community.

REFERENCES

[1] Berkman, N. D., Davis, T. C., & McCormack, L., "Health Literacy: What Is It?," *Journal of Health Communication,* pp. 15(sup2), 9–19, 2010.

[2] "World Health Organization: WHO," 5 August 2024. [Online]. Available: https://www.who.int/news-room/fact-sheets/detail/health-literacy.

[3] Sykes, S., Wills, J., Rowlands, G., & Popple, K., "Understanding critical health literacy: a concept analysis," *BMC Public Health,* p. 13(1), 2013.

[4] Maindal, H. T., & Aagaard-Hansen, J., "Health literacy meets the life-course perspective: towards a conceptual framework," *Global Health Action,* p. 13(1), 2020.

[5] Morales, M., & Zhou, X., "Health practices of immigrant women: Indigenous knowledge in an urban environment," *Proceedings of the Association for Information Science and Technology,* pp. 52(1), 1–10, 2015.

[6] Nutbeam, D., & Lloyd, J. E., "Understanding and Responding to Health Literacy as a Social Determinant of Health," *Annual Review of Public Health,* pp. 42(1), 159–173, 2020.

[7] Schnitzer, A. E., Rosenzweig, M., & Harris, B., "Health Literacy: A Survey of the Issues and Solutions," *Semantic Scholar,* 2011.

[8] Davis, T. C., Wolf, M. S., Bass, P. F., Middlebrooks, M., Kennen, E., Baker, D. W., Bennett, C. L., Durazo-Arvizu, R., Bocchini, A., Savory, S., & Parker, R. M., "Low literacy impairs comprehension of prescription drug warning labels," *Journal of General Internal Medicine,* pp. 21(8), 847–851, 2006.

[9] Mayo-Gamble, T. L., & Mouton, C., "Examining the Association Between Health Literacy and Medication Adherence Among Older Adults," *Health Communication,* pp. 33(9), 1124–1130, 2017.

[10] Shahid, R., Shoker, M., Chu, L. M., Frehlick, R., Ward, H., & Pahwa, P., "Impact of low health literacy on patients' health outcomes: a multicenter cohort study," *BMC Health Services Research,* p. 22(1), 2022.

[11] R. E. Rudd, "Adult Education and Public Health Partner to Address Health Literacy Needs," *Adult Learning,* pp. 15(1–2), 7–9, 2004.

[12] Liang, L., & Brach, C., "Health literacy Universal precautions are still a distant dream: Analysis of U.S. data on health literate practices.," *Health Literacy Research and Practice,* no. 1, p. 4, 2017.

[13] M. Dean Schillinger, "Social Determinants, Health Literacy, and Disparities: Intersections and Controversies," *HLRP: Health Literacy Research and Practice. HLRP: Health Literacy Research and Practice. ,* p. 5(3):e234–e243, 07 August 2021.

[14] Coleman, C. A., Hudson, S., & Maine, L. L., "Health Literacy Practices and Educational Competencies for Health Professionals: A Consensus Study," *Journal of Health Communication,* pp. 18(sup1), 82–102., 2013.

[15] Rudd, R. E., Kaphingst, K., Colton, T., Gregoire, J., & Hyde, J., "Rewriting Public Health Information in Plain Language.," *Journal of Health Communication,* pp. 9(3), 195–206, 2004.

[16] Koh, H. K., Berwick, D. M., Clancy, C. M., Baur, C., Brach, C., Harris, L. M., & Zerhusen, E. G., "New Federal Policy Initiatives To Boost Health Literacy Can Help The Nation Move Beyond The Cycle Of Costly 'Crisis Care.'," *Health Affairs,* pp. 31(2), 434–443, 2012.

[17] Sentell, T. L., & Halpin, H. A., "Importance of adult literacy in understanding health disparities," *Journal of General Internal Medicine,* pp. 21(8), 862–866, 2006.

[18] Sørensen, K., Van Den Broucke, S., Fullam, J., Doyle, G., Pelikan, J., Slonska, Z., & Brand, H., "Health literacy and public health: A systematic review and integration of definitions and models," *BMC Public Health,* p. 12(1), 2012.

[19] Zheng, C., & Caban-Martinez, A. J., "Acceptability, feasibility and implementation of a web-based U.S. Health Insurance Navigation Tool (HINT)," *BMC Research Notes,* p. 14(1), 2021.

[20] Yagi, B. F., Luster, J. E., Scherer, A. M., Farron, M. R., Smith, J. E., & Tipirneni, R., "Association of Health Insurance Literacy with Health Care Utilization: a Systematic Review," *Journal of General Internal Medicine,* pp. 37(2), 375–389, 2021.

[21] Battineni, G., Baldoni, S., Chintalapudi, N., Sagaro, G. G., Pallotta, G., Nittari, G., & Amenta, F., "Factors affecting the quality and reliability of online health information.," *Digital Health,* p. 6, 2020.

[22] McKinnon, K. A., Caldwell, P. H. Y., & Scott, K. M., "How adolescent patients search for and appraise online health information: A pilot study," *Journal of Paediatrics and Child Health,* pp. 56(8), 1270–1276, 2020.

[23] Rababah, J. A., Al-Hammouri, M. M., Drew, B. L., & Aldalaykeh, M., "Health literacy: exploring disparities among college students," *BMC Public Health,* p. 19(1), 2019.

[24] Storey, A., Hanna, L., Missen, K., Hakman, N., Osborne, R. H., & Beauchamp, A., "The Association between Health Literacy and Self-Rated Health Amongst Australian University Students.," *Journal of Health Communication,* pp. 25(4), 333–343, 2020.

[25] Ozer, E. M., & Irwin, C. E., "Adolescents and young adult health.," *Wiley Online Library,* 2009.

[26] J. A. Manganello, "Health literacy and adolescents: a framework and agenda for future research," *Health Education Research,* pp. 23(5), 840–847, 2007.

[27] S. Ek, "Gender differences in health information behaviour: a Finnish population-based survey," *Health Promotion International,* pp. 30(3), 736–745, 2013.

[28] Rowley, J., Johnson, F., & Sbaffi, L., "Gender as an influencer of online health information-seeking and evaluation behavior," *Journal of the Association for Information Science and Technology,* pp. 68(1), 36–47, 2015.

[29] Hassan, M. M., Ali, A. N., Ali, I., Mohamed, Z. O., Abdullahi, H. M., Ahmed, M. M., Mohamud, A. K., Adebisi, Y. A., Okesanya, O. J., & Lucero-Prisno, D. E., III., "Regulation of health

professions education and the growth of schools in Somalia.," *BMC Medical Education,* p. 24(1), 2024.

[30] Sarikhani, Y., Najibi, S. M., & Razavi, Z., "Key barriers to the provision and utilization of maternal health services in low-and lower-middle-income countries; a scoping review.," *BMC Women S Health,* p. 24(1), 2024.

[31] Rababah, J. A., Al-Hammouri, M. M., & Drew, B. L., "The impact of health literacy on college students' psychological disturbances and quality of life: a structural equation modeling analysis," *Health and Quality of Life Outcomes,* p. 18(1), 2020.

[32] Shudayfat, T., Hani, S. B., Shdaifat, E., Al-Mugheed, K., Alsenany, S. A., & Abdelaliem, S. M. F., "Electronic health literacy and its association with lifestyle behavior among undergraduate students: A cross-sectional survey," *Digital Health,* p. 9, 2023.

[33] Kühn, L., Bachert, P., Hildebrand, C., Kunkel, J., Reitermayer, J., Wäsche, H., & Woll, A., "Health Literacy Among University Students: A Systematic Review of Cross-Sectional Studies.," *Frontiers in Public Health,* p. 9, 2022.

[34] Rosário, J., Raposo, B., Santos, E., Dias, S., & Pedro, A. R., "Efficacy of health literacy interventions aimed to improve health gains of higher education students—a systematic review," *BMC Public Health,* p. 24(1), 2024.

[35] D. Marks, The Health Psychology Reader, In SAGE Publications Ltd eBooks, 2002.

[36] Zhou, J., & Fan, T., "Understanding the Factors Influencing Patient E-Health Literacy in Online Health Communities (OHCs): A Social Cognitive Theory Perspective.," *International Journal of Environmental Research and Public Health,* pp. 16(14), 2455, 2019.

[37] H. Hwang, "Influence of Social Cognitive Factors on Physical Activity among Breast Cancer Survivors," *Korean Journal of Adult Nursing,,* no. 31(2), p. 211, 2019.

[38] Jones, C. J., Smith, H., & Llewellyn, C., "Evaluating the effectiveness of health belief model interventions in improving adherence: a systematic review.," *Health Psychology Review,* pp. 8(3), 253–269., 2013.

[39] R. Peter, "A fresh look at primary prevention for health risks.," *Health Economics,* pp. 30(5), 1247–1254, 2021.

[40] Suleiman, I. O. & University Library, Sokoto State University, Nigeria., "Adopting Health Belief Model as an Intervention to Low Health Information Literacy," In IOSR Journal of Humanities and Social Science, 2019.

[41] Del Pilar Arias López, M., Ong, B. A., Frigola, X. B., Fernández, A. L., Hicklent, R. S., Obeles, A. J. T., Rocimo, A. M., & Celi, L. A., "Digital literacy as a new determinant of health: A scoping review," *PLOS Digital Health,* p. 2(10), 2023.

[42] P. Pinheiro, "Conceptualizations of Health Literacy: Past Developments, Current Trends, and Possible Ways Forward Toward Social Practice | HLRP: Health Literacy Research and Practice," *HLRP: Health Literacy Research and Practice,* p. 5(2):e91–e95, 2021.

[43] V. Sujatha, "What Is the Sociology behind Health Status and Health-seeking Behaviour?," *Sociological Bulletin,* pp. 66(3), 286–301, 2017.

[44] Li, S., Miles, K., George, R. E., Ertubey, C., Pype, P., & Liu, J., "A critical review of cultural competence frameworks and models in medical and health professional education: A meta-

ethnographic synthesis: BEME Guide No. 79," *Medical Teacher,* vol. 45, no. 10, p. 1085–1107, 2023.

[45] Woodland, L., Blignault, I., O'Callaghan, C., & Harris-Roxas, B., "A framework for preferred practices in conducting culturally competent health research in a multicultural society," *Health Research Policy and Systems,* p. 19(1), 2021.

[46] Henderson, S., Horne, M., Hills, R., & Kendall, E, "Cultural competence in healthcare in the community: A concept analysis.," *Health & Social Care in the Community,* pp. 26(4), 590–603, 2018.

[47] Alotaibi, N., Wilson, C. B., & Traynor, M., "Enhancing digital readiness and capability in healthcare: a systematic review of interventions, barriers, and facilitators.," *BMC Health Services Research,* p. 25(1), 2025.

[48] Wilson, Y., White, A., Jefferson, A., & Danis, M., "Intersectionality in Clinical Medicine: The Need for a Conceptual Framework.," *The American Journal of Bioethics,* pp. 19(2), 8–19, 2019.

[49] Mukherjee, A., & Bawden, D., "Health information seeking in the information society.," *Health Information & Libraries Journal,* pp. 29(3), 242–246, 2012.

[50] Pesälä, S., Virtanen, M. J., Sane, J., Mustonen, P., Kaila, M., & Helve, O., "Health Information–Seeking Patterns of the General Public and Indications for Disease Surveillance: Register-Based Study Using Lyme Disease.," *JMIR Public Health and Surveillance,* pp. 3(4), e86, 2017.

[51] Basch, C. H., MacLean, S. A., Romero, R., & Ethan, D., "Health information seeking behavior among college students," *Journal of Community Health,* pp. 43(6), 1094–1099, 2018.

[52] Britt, R. K., Collins, W. B., Wilson, K., Linnemeier, G., & Englebert, A. M., "eHealth Literacy and Health Behaviors Affecting Modern College Students: A Pilot Study of Issues Identified by the American College Health Association," *Journal of Medical Internet Research,* pp. 19(12), e392, 2017.

[53] Jackson, D. N., Chou, W. S., Coa, K. I., Oh, A., & Hesse, B., "Implications of social media use on health information technology engagement: Data from HINTS 4 cycle 3," *Translational Behavioral Medicine,* pp. 6(4), 566–576, 2016.

[54] P. R. Center., "Social Media and Young Adults," 14 April 2024. [Online]. Available: https://www.pewresearch.org/internet/2010/02/03/social-media-and-young-adults/.

[55] Haas, D. M., Parker, C. B., Wing, D. A., Parry, S., Grobman, W. A., Mercer, B. M., Simhan, H. N., Hoffman, M. K., Silver, R. M., Wadhwa, P., Iams, J. D., Koch, M. A., Caritis, S. N., Wapner, R. J., Esplin, M. S., Elovitz, M. A., Foroud, T., Peaceman, A. M, "A description of the methods of the Nulliparous Pregnancy Outcomes Study: monitoring mothers-to-be (nuMoM2b)," *American Journal of Obstetrics and Gynecology,* pp. 212(4), 539.e1-539.e24, 2015.

[56] Arozullah, A. M., Yarnold, P. R., Bennett, C. L., Soltysik, R. C., Wolf, M. S., Ferreira, R. M., Lee, S. D., Costello, S., Shakir, A., Denwood, C., Bryant, F. B., & Davis, T., "Development and Validation of a Short-Form, Rapid Estimate of Adult Literacy in Medicine.," *Medical Care,* p. 45(11), 2007.

[57] Yee, L. M., Silver, R., Haas, D. M., Parry, S., Mercer, B. M., Wing, D. A., Reddy, U., Saade, G. R., Simhan, H., & Grobman, W. A., "Association of Health Literacy Among Nulliparous Individuals and Maternal and Neonatal Outcomes," *JAMA Network Open,* p. 4(9), 2021.

[58] Ocakoglu, S. R., Atak, Z., Uyaniklar, O. O., & Ocakoglu, G., "A Prospective Evaluation of Health Literacy Levels of Pregnant Women in Antenatal Classes: Impact on Delivery Outcomes in Nulliparous and Multiparous Women," *Diagnostics,* pp. 14(22), 2580, 2024.

[59] Mehraeen, E., Mehrtak, M., Janfaza, N., Karimi, A., Heydari, M., Mirzapour, P., & Mehranfar, A., "Design and Development of a Mobile-Based Self-Care Application for Patients with Type 2 Diabetes.," *Journal of Diabetes Science and Technology,* pp. 16(4), 1008–1015, 2021.

[60] Nia, N. G., Kaplanoglu, E., & Nasab, A., "Evaluation of artificial intelligence techniques in disease diagnosis and prediction," *Discover Artificial Intelligence,* p. 3(1), 2023.

[61] Ji, H., Dong, J., Pan, W., & Yu, Y., "Associations between digital literacy, health literacy, and digital health behaviors among rural residents: evidence from Zhejiang, China.," *International Journal for Equity in Health,* p. 23(1), 2024.

[62] Swire-Thompson, B., & Lazer, D., "Public Health and Online Misinformation: Challenges and Recommendations," *Annual Review of Public Health,* p. 41(1), 2019.

[63] Van De Vijver, S., Tensen, P., Asiki, G., Requena-Méndez, A., Heidenrijk, M., Stronks, K., Cobelens, F., Bont, J., & Agyemang, C., "Digital health for all: How digital health could reduce inequality and increase universal health coverage," *Digital Health,* p. 9, 2023.

[64] Van Der Vaart, R., & Drossaert, C., "Development of the Digital Health Literacy Instrument: Measuring a Broad Spectrum of Health 1.0 and Health 2.0 Skills.," *Journal of Medical Internet Research,* pp. 19(1), e27, 2017.

[65] Bak, C. K., Krammer, J. Ø., Dadaczynski, K., Orkan, O., Von Seelen, J., Prinds, C., Søbjerg, L. M., & Klakk, H., "Digital Health Literacy and Information-Seeking Behavior among University College Students during the COVID-19 Pandemic: A Cross-Sectional Study from Denmark.," *International Journal of Environmental Research and Public Health,* pp. 19(6), 3676., 2022.

[66] Ning, L., Zheng, Z., Liu, M., Gao, S., Yang, X., Bi, J., Yu, X., & Yi, D., "Profiles of digital health literacy among university students and its association with mental health during the COVID-19 pandemic: A latent profile analysis," *Semantic Scholar,* 1 January 2024.

[67] S. McLeod, "Simply Psychology," 14 December 2023. [Online]. Available: https://www.simplypsychology.org/reliability.html.

[68] Baska, T., & Pustejovsky, J., "Health literacy, mental health and substance us among college students: Implications of promoting wellness," *Health Promotion Practice,* pp. 575-585, 2020.

[69] Berkman, N. D., Davis, K. S., & McCormack, L. , "Health literacy interventions and outcomes: An updated systematic review.," *Evidence Report/Technology Assessment,* pp. 1-941, 2011.

[70] Weiss, B. D., Schwartzberg, J. G., Davis, T. C., Parker, R. M., Sokol, P. E., & Williams, M. V., "Manual for clinicians (Second edition)," 2007.

[71] Freedman, D. A., Handy, L. D., & Wirth, K., "The impact of health literacy on health outcomes among college students.," *Journal of American College Health,* pp. 177-185, 2009.

[72] Baker, D. W., Gazmararian, J. A., Sudano, J., & Patterson, M., "The Association Between Age and Health Literacy Among Elderly Persons.," *The Journals of Gerontology Series B,* pp. 55(6), S368–S374., 2000.

[73] Baker, D. W., Gazmararian, J. A., Sudano, J., & Patterson, M., "The association between age and health literacy among elderly persons," *The Journals of Gerontology Series B: Psychological Science and Social Sciences,* pp. S368-S374, 2011.

[74] Henneman, A., Korner, M., & Berenji, M. , "Health literacy and the role of digital media: A scoping review," *Health Information & Libraries Journal,* pp. 68-78, 2012.

[75] Bonnechère, B., Kossi, O., Mapinduzi, J., Panda, J., Rintala, A., Guidetti, S., Spooren, A., & Feys, P., "Mobile health solutions: An opportunity for rehabilitation in low- and middle income countries?," *Frontiers in Public Health,* p. 10, 2023.

[76] Buvik, A., Bugge, E., Knutsen, G., Småbrekke, A., & Wilsgaard, T., "Quality of care for remote orthopaedic consultations using telemedicine: a randomised controlled trial.," *BMC Health Services Research,* p. 16(1), 2016.

[77] Feinberg, I., Greenberg, D., Frijters, J. C., , "Understanding Health Information Seeking Behaviors of Adults with Low Literacy, Numeracy, and Problem Solving Skills: Results from the 2012 US PIAAC Study.," 2015.

[78] Greenwell, K., Ainsworth, B., Bruton, A., Murray, E., Russell, D., Thomas, M., & Yardley, L., "Mixed methods process evaluation of my breathing matters, a digital intervention to support self-management of asthma.," *Npj Primary Care Respiratory Medicine,* p. 31(1), 2021.

[79] Hollander, J. E., & Carr, B. G., "Virtually Perfect? Telemedicine for Covid-19," *New England Journal of Medicine,* pp. 382(18), 1679–1681, 2020.

[80] Huesch, M. D., "Privacy Threats When Seeking Online Health Information," *JAMA Internal Medicine,* pp. 173(19), 1838., 2013.

[81] Kruse, C. S., Krowski, N., Rodriguez, B., Tran, L., Vela, J., & Brooks, M., "Telehealth and patient satisfaction: a systematic review and narrative analysis.," *BMJ Open,* pp. 7(8), e016242., 2017.

[82] Liang, X., Xiong, F., & Xie, F., "The effect of smartphones on the self-rated health levels of the elderly.," *BMC Public Health,* p. 22(1), 2022.

[83] I. o. Medicine, Health Literacy: Improving Health, Health Systems, and Health Policy Around the World: Workshop Summary, Washington, DC: The National Academies Press, 2013.

[84] "National Center for Education Statistics," [Online]. Available: https://nces.ed.gov/naal/.

[85] Osborne, R. H., Batterham, R. W., Elsworth, G. R., Hawkins, M., & Buchbinder, R., "The grounded psychometric development and initial validation of the Health Literacy Questionnaire (HLQ)," *BMC Public Health,* p. 13(1), 2013.

[86] Parnell, T. A., Stichler, J. F., Barton, A. J., Loan, L. A., Boyle, D. K., & Allen, P. E., "A concept analysis of health literacy," *Nursing Forum,* pp. 54(3), 315–327, 2019.

[87] Prasopkittikun, T., Srichantaranit, A., & Chunyasing, S., "Thai nurses' perceptions and practices of family-centered care: The implementation gap," *International Journal of Nursing Sciences,* pp. 7(1), 74–80, 2019.

[88] Secinaro, S., Calandra, D., Secinaro, A., Muthurangu, V., & Biancone, P., "The role of artificial intelligence in healthcare: a structured literature review," *BMC Medical Informatics and Decision Making,* p. 21(1), 2021.

[89] Tan, Y. Y., Woulfe, F., Chirambo, G. B., Henn, P., Cilliers, L., Fadahunsi, K. P., Taylor-Robinson, S. D., & O'Donoghue, J., "Framework to assess the quality of mHealth apps: a mixed-method international case study protocol," *BMJ Open,* p. 12(10), 2022.

[90] S. Ashtari, "Media Health Literacy: A Scoping Review and Agenda for Future Research.," *International Journal of Communication,* 24 February 2025.

[91] Levin-Zamir, D., & Bertschi, I., "Media Health Literacy, eHealth Literacy, and the Role of the Social Environment in Context.," *International Journal of Environmental Research and Public Health,* pp. 15(8), 1643, 2018.

[92] P. J. Fitzpatrick, "Improving health literacy using the power of digital communications to achieve better health outcomes for patients and practitioners," *Frontiers in Digital Health,* p. 5, 2023.

[93] Kalankesh, L. R., Mohammadian, E., Ghalandari, M., Delpasand, A., & Aghayari, H., "Health Information Seeking Behavior (HISB) among the University Students," *Frontiers in Health Informatics,* pp. 8(1), 13, 2019.

[94] Finbråten, H. S., Wilde-Larsson, B., Nordström, G., Pettersen, K. S., Trollvik, A., & Guttersrud, Ø., "Establishing the HLS-Q12 short version of the European Health Literacy Survey Questionnaire: latent trait analyses applying Rasch modelling and confirmatory factor analysis," *BMC Health Services Research,* p. 18(1), 2018.

APPENDIX

QUESTIONNAIRE

Dear respondents,

As part of the requirements to complete my education this study is being conducted. These questions are developed to investigate the relationship between your program of study and health seeking behaviour of students in uttaranchal college of health science. To ensure that ethical considerations are being met no email will be collected in order to ensure that participants remain anonymous.

Thank you for your contribution. Your contribution is deeply appreciated.

Instructions: Please tick where appropriate.

SECTION A - DEMOGRAPHICS

Sex

Male [ ] Female [ ]

Age

17-22 [ ] 23-27 [ ] 28-32 [ ] 28-32 [ ] 33-39 [ ] 40 or more [ ]

Do you have a close family member in the health profession?

Yes [ ] No [ ]

Program of study?

Master of Public Health [ ]

Master of Health Administration [ ]

BSc Medical Lab Technology (BMLT) [ ]

BSc Operation Theatre (BOTT) [ ]

BSc Optometry (BOPT) [ ]

BSc Medical Radio Imaging Technology (BMRIT) [ ]

BSc Physiotherapy (BPT) [ ]

BSc Nursing [ ]

What is your preferred source of treatment?

Homeopathy [ ] Ayurveda [ ] Allopathy [ ] Other [ ]

SECTION B – HEALTH LITERACY

	Very Difficult	Difficult	Easy	Very Easy
1. How easy is it to find out where to get professional help when you are ill?	☐	☐	☐	☐
2. How easy is it to understand information about what to do in medical emergencies?	☐	☐	☐	☐
3. How easy it is to judge the advantages and disadvantages of different treatment options?	☐	☐	☐	☐
4. How easy it is to act on advice from your doctor or pharmacist?	☐	☐	☐	☐

5. How easy is it to find information on how to handle mental health problems?	☐ ☐ ☐ ☐
6. How easy is it to understand information about recommended health screenings or examinations?	☐ ☐ ☐ ☐
7. How easy is it to judge if the information on unhealthy habits, such as smoking, low physical activity, or drinking too much alcohol are reliable?	☐ ☐ ☐ ☐
8. How easy is it to decide how you can protect yourself from illness using information from the mass media?	☐ ☐ ☐ ☐
9. How easy is it to find information on healthy lifestyles such as physical exercise, healthy food or nutrition?	☐ ☐ ☐ ☐
10. How easy is it to understand advice concerning your health from family and friends?	☐ ☐ ☐ ☐
11. How easy is it to judge how your housing conditions may affect your health and well-being?	☐ ☐ ☐ ☐
12. How easy is it to make decisions to improve your health and well-being?	☐ ☐ ☐ ☐

SECTION C – HEALTH INFORMATION SEEKING BEHAVIOUR

	Never	**Rarely**	**Sometimes**	**Often**	**Always**
1. In general, how often do you use ***family and/or friends*** as a source to get health information?	☐	☐	☐	☐	☐

2. In general, how often do you use ***health or medical professionals*** as a source to get health information?	☐ ☐ ☐ ☐ ☐
3. In general, how often do you use ***Internet*** as a source to get health information?	☐ ☐ ☐ ☐ ☐
4. In general, how often do you use ***Newspaper or Books*** as a source to get health information?	☐ ☐ ☐ ☐ ☐
5. In general, how often do you use ***social media*** as a source to get health information?	☐ ☐ ☐ ☐ ☐
6. In general, how often do you use ***Televisions*** as a source to get health information?	☐ ☐ ☐ ☐ ☐
	Once a month or more **Less than once a month**
7. In general, how often do you use family and/or friends as a source to get health information?	☐ ☐
	Yes **No**
8. In general, how often do you use health or medical professionals as a source to get health information?	☐ ☐
	Very Interested **Somewhat Interested** **A Little bit Interested** **Not at all Interested**
9. In the past 12 months when you talked with a health care professional, how interested were they in hearing about the information you found online?	☐ ☐ ☐ ☐
	Yes **No**

10. In the past 12 months, have you looked for health or medical information for yourself while using the internet?	☐ ☐
11. In the past 12 months, have you looked for health or medical information for someone else while using the internet?	☐ ☐
	Very Unlikely / Unlikely / Neutral / Likely / Very Likely
12. When searching health or medical issues on the Internet, how likely are you to consider the quality of information from one web source as accurate?	☐ ☐ ☐ ☐ ☐
13. When searching health or medical issues on the Internet, how likely are you to gather information using several web sources to evaluate and approve its accuracy?	☐ ☐ ☐ ☐ ☐
14. When searching health or medical issues on the Internet, how likely are you to share the information you find with family or friends without checking its accuracy?	☐ ☐ ☐ ☐ ☐
15. When searching health or medical issues on the Internet, how likely are you to confirm the information you find with a health or medical professional?	☐ ☐ ☐ ☐ ☐
	Very Inaccurate / Inaccurate / Neutral / Accurate / Very Accurate
16. When searching for health or medical issues, how accurate do you think the information on the Internet is?	☐ ☐ ☐ ☐ ☐
17. When encountering health or medical topics on social media, how accurate do you think the information is?	☐ ☐ ☐ ☐ ☐
	Strongly Disagree / Disagree / Neutral / Agree / Strongly Agree
18. The number of follower and/or who is within the same network influences the accuracy of the information presented.	☐ ☐ ☐ ☐ ☐

19. The Internet provides helpful resources for health information	☐ ☐ ☐ ☐ ☐
20. Social media provides helpful resources for health information.	☐ ☐ ☐ ☐ ☐

Plagiarism Report

QuillBot Similarity Report

PAPER NAME

Health literacy behaviour with borders.docx

WORD COUNT	RESULTS COUNT
18897	**168**
SUBMISSION DATE	REPORT DATE
31 May 2025, 7:50:43 pm GMT+5:30	**31 May 2025, 8:00:29 pm GMT+5:30**

6%

The combined total of all matches, including overlapping sources, for each database.

A.I Report