

SYSTEMATIC REVIEW

The Innovation of a Web-Based Prayer Assistant for Hospitalised Muslim Patients: A Systematic Literature Review

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ABSTRACT

Introduction: The rapid growth in digital technology has significantly impacted various disciplines, including education. As a result, the study of prayer education during illness, associated with digital technologies, has become an emerging area of research. This systematic review aims to identify the online application's objectives, design, and content from previous studies to adapt the survey for developing a web-based prayer assistant for warded Muslim patients. **Methods:** A comprehensive review of 422 articles, discourses, and studies discussing the implementation of the prayer module was conducted. The authors thoroughly examined and evaluated these articles to establish criteria for developing a web-based prayer assistant for patients. Following a rigorous screening process, six specialized studies were identified to guide the development of the web-based prayer assistant via the prayer module. **Results:** Each of the six specialized studies was tailored to meet the requirements of its specific objective. These studies provided insights into the objectives, design, and content of online applications for prayer education during illness. The review of these studies facilitated the development of a web-based prayer assistant that caters to the needs of warded Muslim patients during their time of illness. **Conclusion:** This systematic review establishes the foundation for a web-based prayer assistant for hospitalised muslim patients. It emphasises the role of online education in the propagation of religious principles and promotion of spiritual well-being. The findings demonstrate the importance of integrating digital technology into healthcare prayer education.

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INTRODUCTION

Digital education (also known as electronic or digital learning) is the teaching and learning that uses digital technology. It is an all-encompassing term for rapidly expanding technology (1). According to Heinich (2), multimedia interactively has been effective in disseminating information to the public due to the information presented, which can be maintained for an extended period and can be accessed quickly and easily compared to the conventionally utilised method. Thus, virtually all fields, including health, which is known as digital health, currently utilise the benefits of technology.

Digital Health Technologies is the application development that connects health practitioners and the public to encourage public participation

in activities to maintain their health and improve patients' adherence to treatment protocols and self-management of chronic illness (3). Digital Health Education also refers to the broad scope of digital health, which includes categories such as mobile health (mHealth), health information technology (IT), available tools, online consultation (telehealth), and personal medication management (4) (5). It also includes data obtained through digital technology to measure an individual's daily health habits and create digital therapy tools that can be accessed at any time and from any location (6).

According to WHO data (7), the percentage of digital health users represents groups; a country's population requires medical services, and the number of patients' caretakers increases annually. In 2020, nearly 300,000 digital health applications were developed, and nearly 7.4 billion dollars were invested, as evidenced by the increasing number of users (8). The term digital health refers to the application of modern technology to issues about human health, which encompasses the tools

or technological advancements and various applications (9).

The development of digital health education has entered a new phase with the exploration of the interaction strategy of patients receiving mental health care in the contemporary technological world. Even by sending text messages, audio, and other, the indirect application development can provide a glimmer of hope to specific groups to treat the problem (10). In addition, an application for Colorectal Cancer is designed to increase males' awareness of large intestine cancer, also known as intestinal cancer, which occurs in the large intestine (11). Consequently, digital health applications enter a new phase by collaborating with other fields, particularly religious practices that benefit the current technological world by treating patients spiritually and physically.

The development of digital applications in religious health education is one of the preaching venues directed at patient groups, particularly those hospitalised. According to Ashaari (12), hospital patients require physical and spiritual treatment and education for psychological and emotional stability. Therefore, implementing the methods of the Ibadah Friendly Hospital (HMI) in Malaysia is one of the authorities' responsibilities for preserving the religious practices of their patients.

Before Malaysia implemented the Ibadah Friendly Hospital concept, the idea was inspired by Islamic hospitals in Jordan (14). These hospitals emphasize the importance of integrating religious practices and spiritual care into the healthcare system to provide a holistic approach to patient care.

In recent years, many hospitals in Indonesia have also become more concerned about the Ibadah Friendly Hospital concept. They recognize the need to prioritize patients' spiritual needs alongside their physical and mental wellbeing. As a result, there has been a growing interest in developing a standard for Shariah-compliant hospitals. This standard aims to provide guidelines and a framework for hospitals to ensure that they adhere to Islamic principles and values in their operations and patient care (15).

The concept of Ibadah Friendly Hospital (HMI) focuses on achieving excellence and identity values towards the management and staff of the hospital, as well as bringing implementation and comprehension toward patients on matters of religious practices, whether during or after treatment (13). HMI is a concept of implementing and understanding Islamic values in hospitals, which is also implemented by the Ministry of Health (MOH). This implementation includes the management of patients' religious practices, comprehension of Islamic values in

performing daily duties, and spiritual counselling services geared toward integrating physical, psychosocial, mental, and spiritual therapies.

The growing emphasis on Ibadah Friendly Hospitals and the development of standards for Shariah-compliant hospitals reflect the increasing importance of incorporating religious and spiritual elements into healthcare systems, particularly in countries with a large Muslim population. This holistic approach to patient care is expected to contribute to better overall patient outcomes and satisfaction.

The issue of managing patients' religious practices, whether it is served or not, raised a question when the medical staff's time constraints and diverse responsibilities prevented them from performing flawlessly. In addition, according to the research by Lukman Hakim, only 20.7% of nurses attended courses on performing ablutions and prayers for patients. Furthermore, the data revealed that a significant portion of the medical staff was unaware of their responsibilities and procedures for performing religious rituals for patients upon request (16).

Aris's study discovered that 78.9% of patients treated at Langkawi Hospital did not pray because they did not know how to pray while ill. 48.2% of individuals in the same population reported that nobody instructed them to pray and perform ablution while in the hospital (17).

Another study involving female Islamic patients at the Obstetrics & Gynecology Department of Hospital Raja Perempuan Zainab II (HRPZ II), Kota Bharu, Kelantan, revealed that only 36% of respondents perform their prayers. Comparatively, nearly 38 percent do not perform their prayers, and 26 percent perform them only occasionally (18).

Therefore, this study incorporates technological elements in the form of digital, multimedia, and application, which will be combined with the theory of prayer learning during illness to develop an appropriate digital health learning module.

METHODOLOGY

This study involves a systematic literature review approach to examine past research on the evolution of digital prayer among patients. The findings will be developed into a module for the web-based health form's patient prayer after a thorough screening. The following questions form the basis of this study:

- 1) What is the most suitable format for incorporating patient prayers into the health education module?
- 2) What content should be included in the health education module regarding patients' prayers?

Four phases comprising identification, screening, eligibility, and inclusion criteria will be utilised in this SLR, which consists of four distinct phases (19) (20). The identification phase (figure 1) employs four keywords to search for relevant and applicable articles, including modules for the prayer of patients, technology applications for the prayer of patients, and digital education for the prayer of patients. A total of 422 articles and studies were discovered due to the identification phase. It was conducted using search engines like Google Scholar. In addition, databases including Research Gate, Journal of Islamic Dakwah UKM, International Journal of Islamic and Civilisational Studies UTM, International Seminar on Syariah and Law (INSLA), USIM, Journal of Islamic Educational Research (JIER) UM, studentsrepo.um.edu.my, Jurnal Syariah UM, Jurnal Usuluddin UM, Al-Qanatif International Journal of Islamic Studies USIM and USIM Research Repository. In addition, the keyword 'AND' was used between the studies' keyword scopes to identify this study's findings to increase the number of results and broaden the search on the development of digital applications and patient prayer.

The second phase is the screening phase, which consists of redundant articles or studies being eliminated through the review of titles; 45 articles remain. The selection of 25 articles was based on their accepted eligibility for the study's scope. In this phase, it was crucial to review the abstract to determine the objective, methodology, and results obtained. In the final stage, the inclusion criteria, a comprehensive review of the titles, abstracts, and entire articles and studies, excluding all but five studies relevant to the author's study. The authors

focused primarily on developing online education in Malaysia to make the selected studies' content analysis more realistic and localised compared to other studies conducted outside Malaysia, particularly those conducted in Arabic and European countries

Studies on the development of prayer modules were also discovered in various academic disciplines. All studies conducted in Malaysia were included, including one study from Indonesia that involved developing a prayer application for those with hearing impairments and the analysis module of a prayer application conducted outside Malaysia. The authors then focused on a specialised study on prayer during illness, patient prayer, or any implementation of prayer, reflecting the difficulties of performing prayer perfectly like the average person. During the final phase of analysis, the focus of studies on developing an application or digital education was on the performance of prayer during illness or prayer that deviates from the norm. During this phase, the authors concentrated on constructing the study's objective, application or digital development design, and research methodology.

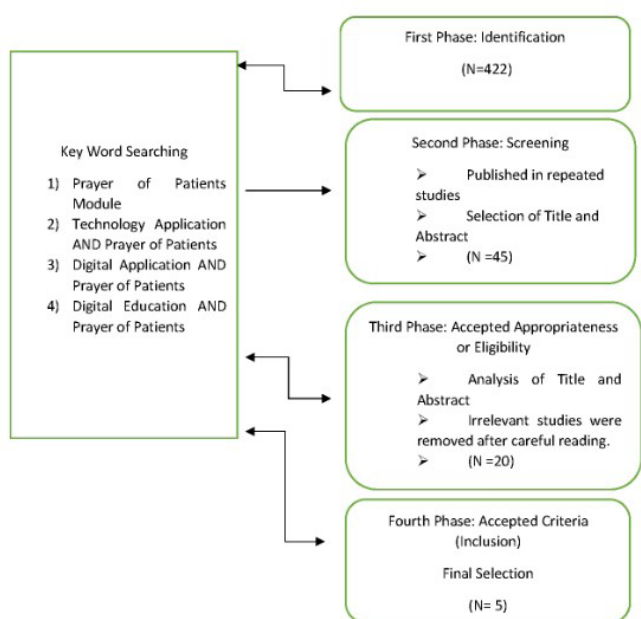


Figure 1 : The study phases in choosing previous studies.

| Author | Title | Objective | Design | Content |
|---|--|---|---|--|
| (Amm, 2013) Faculty of Computer | Pembangunan Aplikasi Solat Untuk Platform Android (Aplikasi Solat) | Provides guideline on how to perform prayer properly | Prototype Technique | Guidelines for obligatory and optional prayer and prayer in bad situations. |
| (Mohamad Azhar, 2019) Faculty of Information Technology | Solah Guide During Illness (Sgdi) Mobile Application in 3d Animation | This application was created to and patients with disabilities in performing their prayers usually. | ADDE Model in 3D Animation. Phases of ADDE Model consist of Analysis, Design, Development, Implementation, and Evaluation | Abkation module, compulsory prayer module, rules of prayer module, dhuha & prayer module. Prayer during sickness, purification procedure, prayer choice, and quiz Prayer during sickness: prayer using the positions of sitting, lying down, sideways, and eye signal |
| (Abas et al., 2015) Faculty of Science and Information Technology | Islamic Studies For Disabled: Teaching Solat For Autism Using Apps | This research centred on prayer instruction of autistic Muslim children. | TEACCH Model (Treatment and Education of Autistic and related Communication Disabled Children) | Purification manner of abkation and tayammum The pedagogy for prayer teaching |
| (Wan Shamsul Bahri et al., 2018) Faculty of Science and Information Technology | Aplikasi Mudah Alih Orang Perseorangan dan berkebutuhan AR | Alih bagi Orang Perseorangan dan berkebutuhan AR | Rapid Application Development (RAD) Model where a study was conducted on Prayer Figh Application using the Augmented Reality approach | Contain issues of prayer figh towards the hearing and speech-disabled groups The use of applications such as 3D Unity, Vuforia, and elements of multimedia (text, audio, and video) |
| (Rosmani et al., 2015) Faculty of Computer and Mathematical Sciences | Bio Terapi Solat: 3D Integration in Solar Technique for Therapeutic | To show prayer in a perfect situation as a therapy for the body and health of humans. | The use of 3D Autodesk Maya application goes through 3 phases: The designing phase, Developing phase, and the Testing phase | Prayer Technique: every movement in the prayer has its therapy which provides benefits to a Muslim |
| (Robbin & Tyas, 2018) Gangguan Pendengaran | Desain Aplikasi Mobile Dan Doa Untuk Anak | Panduan Anak for children with hearing disabilities | Development of prayer application and daily prayer for children with hearing disabilities | Prayer Guidelines |

Figure 2 : Study analysis through objective, method & design, and content.

The study depicted in figure 2 reveals parallels across studies about the development of a prayer application for individuals unable to execute prayer flawlessly. However, depending on the purpose of the study by Rosmani (21), the focus was primarily on the effect and benefit of prayer on the body and health of humans as a therapy utilising Bio Therapy. Using this application as motivational support, the study's purpose can also be tied to the effect of prayer on the health of persons with impairments, per the author's perspective. Moreover, if seen from the perspective of digital health, it can also be categorised as application development for digital health education. There are also studies undertaken through the development of a digital application for a specific target audience. For example, Abas (22) studied the development module for prayer pedagogy, which was subsequently incorporated into an application

for autistic children. According to Abidin (23), autistic adults and children were registered in the Persons with Disabilities Information System (SMOKU), which is also classified as a group with a learning disability. It is acceptable that this group cannot do prayers at the same level as other groups and requires specialised assistance tools to help them comprehend how to perform prayers at their level of comprehension. Wan Shamsul Bahri (24) has created a prayer application for hearing- and speech-impaired challenged individuals. This study has a similar purpose to the study conducted by Robi'in and Tyas(25), which developed a prayer application for children with hearing impairments. Among those who must perform prayers are also disabled groups. Nonetheless, this population has limited access to learning opportunities and requires additional tools to facilitate comprehension (26).

However, there were clear commonalities across the research regarding their designs. Studies such as Wan Shamsul Bahri (24), Mohamad Azhar(27), Robi'in & Tyas (25), and Zainuddin (28) use 3D design as a learning approach in the developed application. From the perspective of the development process's implementation, each study employs nearly identical phases of the employed model: design, development, and evaluation.

According to the analysis, most studies include computers and information technology. The review of published studies also revealed that the dominant field in the development of prayer applications originates from the same region, regardless of whether they were conducted optimally. However, religious education can impact digital health development's purpose, design, and content, allowing for their coordination and incorporation. The suitable theme of the author's study was displayed in figures 4 and 5 based on the analysis results of the six studies given.

Web-Based Prayer of Patients' Health Education Development Model

According to prior research findings, creating a digital application is closely tied to a well-defined

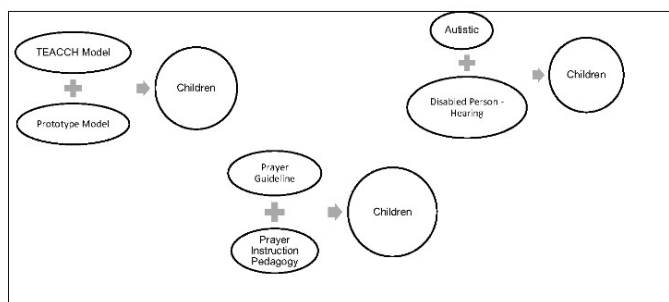


Figure 3 : Children's themes that share design, content, and target.

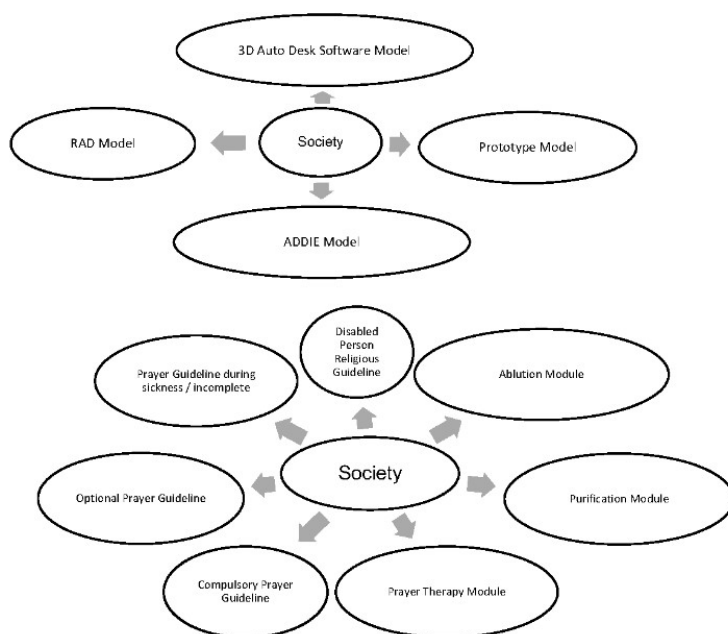


Figure 4 : Societal themes which share design and content.

development purpose, an organized design, and content that benefits the target audience. As an illustration, based on the study by Wan Shamsul Bahri (24), the development of an application for persons with disabilities (PWD) groups with hearing and speech impairments contained a systematic design in the application's multimedia features, which included audio, video, and text. The application's content also accurately represented the study, which concentrated on the target when it addressed just topics related to the fiqh of disabled individuals (PWD). Following the mission and vision of the Malaysian Communications and Multimedia Commission (MCMC), developing an online web-based health education will promote access to communication and multimedia services, create a competitive and effective industrial network, and meet the country's economic and social needs (29). Therefore, the authors concluded that web-based health education for patient prayer must be developed, as depicted in figure 5 below.

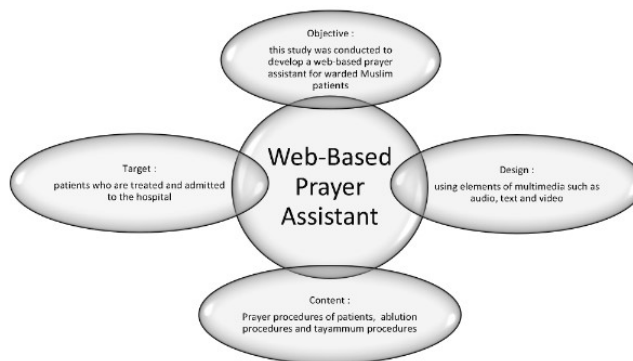


Figure 5 : Development framework of web-based module for patients' prayer.

Study Limitation

The search for research through earlier reviews was often conducted five to ten years in the past (30). The number of years selected determined the extent of the information uncovered. In this analysis, the authors have selected to search for past studies done between 2013 and 2020 based on the previous study's most recently reported outcomes. In conclusion, the writers could not search for previous investigations beginning in 2015 since the conducted studies did not meet the criteria set by the authors. As a result, 2013-era investigations were utilised to support the outcomes of prior studies through the author's development of a study framework. In addition, the selected research focused solely on paid open-source searches; specialised studies were excluded from this investigation.

Therefore, some earlier studies and publications may be related to the author's survey, but they cannot be refined together. This has made the findings helpful; however, they cannot be incorporated into the study's findings. The author of this study reviewed and analysed only research and publications written in Malay and English and conducted in Malaysia.

Future Study Proposal

The highlights of this comprehensive study have demonstrated that the development of online applications has a place among researchers in the era of rapidly advancing information technology. However, research on the religious practises during illness based on the arguments among madhhab through classical and contemporary fiqh texts approved by present-day specialists has not been undertaken in prior research. In addition, the authors could not identify the design of a specialised intervention study following the development of a digital application for the prayer of hospitalised patients towards other hospitalised patients based on the systematic research findings. Therefore, it is recommended that future researchers specialise in the study's scope, in terms of study purpose, design, and content, by employing appropriate research methodologies and methods in their respective domains.

CONCLUSION

The implementation of religious principles using online tools must be considered by all parties in times of rapid technological advancement, particularly by religious officials' oversight bodies. Consequently, online education is viewed as a good value and effective at disseminating information to its targeted audience. This research also uncovered other online development studies on the performance of prayer, including design, mark, and diverse content. In

addition, online health education on prayer during illness has earned a position among researchers and application makers. This demonstrates that the audience for online education transcends age, environment, circumstance, and present demands. Thus, the web-based prayer assistant for Muslim patients is viewed not only as a product of the quick technological advancements of the past few years but also as one of the online learning tools for hospitalised patients.

REFERENCES

1. Kyaw BM, Car LT, Galen LS van, van Agtmael MA, Costelloe CE, Ajuebor O, et al. Health Professions Digital Education on Antibiotic Management: Systematic Review and Meta-Analysis by the Digital Health Education Collaboration. *J Med Internet Res* 2019;21(9):e14984 <https://www.jmir.org/2019/9/e14984> [Internet]. 2019 Sep 12 [cited 2023 Jan 1];21(9):e14984. Available from: <https://www.jmir.org/2019/9/e14984>
2. Heinich R, Molenda M, Russel JD, Smaldino SE. Instructional Media and Technology for Learning. *Instructional Media and Technologies for Learning* [Internet]. 2002 [cited 2023 Jan 2];52–84. Available from: <http://localhost:8080/xmlui/handle/123456789/274>
3. Lupton D. Critical Perspectives on Digital Health Technologies. *Sociol Compass* [Internet]. 2014 Dec 1 [cited 2023 Jan 1];8(12):1344–59. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1111/soc4.12226>
4. Vayena E, Haeusermann T, Adjekum A, Blasimme A, Effic V, Tobias H, et al. Digital health: meeting the ethical and policy challenges. *Swiss Med Wkly*. 2018 Jan 16;148:w14571.
5. Birnbaum F, Lewis D, Rosen RK, Ranney ML. Patient engagement and the design of digital health. *Acad Emerg Med* [Internet]. 2015 Jun 1 [cited 2023 Jan 1];22(6):754. Available from: [/pmc/articles/PMC4674428/](https://pubmed.ncbi.nlm.nih.gov/264428/)
6. Marsch LA. Digital health data-driven approaches to understand human behavior. *Neuropsychopharmacology* 2020 46:1 [Internet]. 2020 Jul 12 [cited 2023 Jan 2];46(1):191–6. Available from: <https://www.nature.com/articles/s41386-020-0761-5>
7. Monitoring and evaluating digital health interventions: a practical guide to conducting research and assessment [Internet]. [cited 2023 Jan 2]. Available from: <https://apps.who.int/iris/handle/10665/252183>
8. Rodriguez JA, Clark CR, Bates DW. Digital Health Equity as a Necessity in the 21st Century Cures Act Era. *JAMA* [Internet]. 2020 Jun 16 [cited 2023 Jan 2];323(23):2381–2. Available from: <https://jamanetwork.com/journals/jama/>

- fullarticle/2766776
9. Lupton D. Critical Perspectives on Digital Health Technologies. *Sociol Compass* [Internet]. 2014 Dec 1 [cited 2023 Jan 2];8(12):1344–59. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1111/soc4.12226>
 10. Rahman TFA, Nayan NM. The effectiveness of text messaging system as mental health treatments: Systematic reviews. *Jurnal Komunikasi: Malaysian Journal of Communication*. 2020;36(4):54–72.
 11. Mohamad Marzuki MF, Yaacob NA, Majdi bin Yaacob N, Abu Hassan MR, Ahmad SB. Usable Mobile App for Community Education on Colorectal Cancer: Development Process and Usability Study. *JMIR Hum Factors* 2019;6(2):e12103 <https://humanfactors.jmir.org/2019/2/e12103> [Internet]. 2019 Apr 16 [cited 2023 Jan 2];6(2):e12103. Available from: <https://humanfactors.jmir.org/2019/2/e12103>
 12. PENDEKATAN DAKWAH DI HOSPITAL DALAM MEMBIMBING KEROHANIAN PESAKIT (The Approach of Da'wah at Hospital in Guiding Patient's Spiritual) | Ashaari | *Jurnal Hadhari: An International Journal* [Internet]. [cited 2023 Jan 2]. Available from: <https://ejournal.ukm.my/jhadhari/article/view/44890>
 13. Hospital Mesra Ibadah [Internet]. [cited 2023 Jan 2]. Available from: <https://jkn Selangor.moh.gov.my/hserdang/index.php/ms/hidden-menu/362>
 14. Kesihatan IP, Mas'ud A1 I, Shafi SM, Aisyah N, Ramli A, Awang Z, et al. ISLAMISATION OF HEALTH SERVICES THROUGH IBADAH FRIENDLY HOSPITAL (IFH). *Malaysian Journal of Islamic Movements and Muslim Societies*. 2021;1:49–58.
 15. Sharifudin MA, Amiruddin S, Nordin SH, Mohamed Yusoff H, Taib MNA, Razali MS, et al. The diamond framework of an ibadah-friendly hospital: A revisit. In: 4th National Conference on Shariah Compliant Hospital 2021. Kuantan; 2021.
 16. Luqman Hakim MG. Peranan Jururawat terhadap ibadah solat pesakit: Kajian di Hospital Sultan Abdul Halim, Sungai Petani, Kedah. 2019;
 17. Aris MSM, Rani MDM, Jaafar MH, Norazmi A 'Ubaidah A, Umar NS. Knowledge, attitude, and practice of performing prayers (Salat) among Muslim patients in hospital Langkawi, Kedah: Roles of muslim healthcare providers. *Adv Sci Lett*. 2017 May 1;23(5):4955–9.
 18. Mutmainnah Yusof N, Abdul Aziz F, Bahyah Mustafa K, Awang M, Rahman Abdullah A. 03|Practice and Awareness of Salat Obligation during Hospital Admission among Female Muslim Patients in Obstetrics & Gynaecology. *Revelation and Science* [Internet]. 2018 Jul 3 [cited 2023 Jan 2];8(1):24–30. Available from: <https://journals.iium.edu.my/revival/index.php/revival/article/view/218>
 19. Nunes EPS, Luz AR, Lemos EM, Nunes C. Approaches of participatory design the design process of a serious game to assist in the learning of hospitalized children. *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)* [Internet]. 2016 [cited 2023 Jan 2];9733:406–16. Available from: https://link.springer.com/chapter/10.1007/978-3-319-39513-5_38
 20. Wahid NTab, Talib O, Sulaiman T, Puad MHM. A Systematic Literature Review on the Problem-Posing Strategies for Biology Problem-Posing Multimedia Module Design. *International Journal of Academic Research in Business and Social Sciences*. 2018 Dec 26;8(12).
 21. Rosmani AF, Zainuddin NA, Ahmad SZ, Ramli SZ. Bio terapi solat: 3D integration in solat technique for therapeutic means. *Lecture Notes in Electrical Engineering* [Internet]. 2015 [cited 2023 Jan 3];315:1001–11. Available from: https://link.springer.com/chapter/10.1007/978-3-319-07674-4_93
 22. Abas H, Othman H, Daud SM. ISLAMIC STUDIES FOR DISABLED: TEACHING SALAT FOR AUTISM USING APPS. Vol. 5. 2014.
 23. Syukri M, Abidin Z, Zarrina Sa'ari C, Mohammad S, Syed H, Rahman A. Cadangan Modul Zikir untuk Amalan Kanak-kanak Autistik Muslim. *Online Journal of Research in Islamic Studies* [Internet]. 2017 [cited 2023 Jan 3];4(2):1–11. Available from: <http://jice.um.edu.my/index.php/RIS/article/view/12270>
 24. Wan Shamsul Bahri Che Wan Ahmad C, Muizz Mohamed Salleh N, Abd Rahman K, Nur Aishah Wan Zaki W, Ab Rahman A. Aplikasi Mudah Alih bagi Permasalahan Solat bagi Orang Kelainan Upaya (OKU) Pendengaran dan Pertuturan berbantuan AR.
 25. Robi'in B, Robi'in B, Tyas ZA. DESAIN APLIKASI MOBILE PANDUAN SHOLAT DAN DOA UNTUK ANAK GANGGUAN PENDENGARAN. *ILKOM Jurnal Ilmiah* [Internet]. 2018 Dec 20 [cited 2023 Jan 3];10(3):290–7. Available from: <https://jurnal.fikom.umi.ac.id/index.php/ILKOM/article/view/366>
 26. Asmak Liana Binti Bakar N, Kebangsaan Malaysia U, Intan Zarina Binti Tengku Puji T. HALANGAN PELAKSANAAN SOLAT FARDHU DALAM KALANGAN ORANG KELAINAN UPAYA (OKU) PENGLIHATAN DI PERSATUAN ORANG-ORANG CACAT PENGLIHATAN ISLAM MALAYSIA (PERTIS) WILAYAH TERENGGANU. *Jurnal 'Ulwan* [Internet]. 2017 Dec 29 [cited 2023 Jan 3];2(1):43–62. Available from: <http://www.kuim.edu.my/journal/index.php/JULWAN/article/view/178>
 27. Mohamad Azhar B. SOLAH GUIDE DURING ILLNESS (SGdI) MOBILE APPLICATION IN 3D

- ANIMATION. [Kuala Terengganu]: Universiti Sultan Zainal Abidin; 2019.
28. Zainuddin NA, Aurani J, Rosmani AF, Wan Daud WN, Md Dali H. Solat bio therapy module / Noor Azura Zainuddin... [et al.]. 2014 [cited 2023 Jan 3]; Available from: <https://jurnalintelek.uitm.edu.my/index.php/main>
29. Suruhanjaya Komunikasi dan Multimedia Malaysia. Mengorak Landskap Digital, Laporan Tahunan 2018. Cyberjaya; 2018.
30. Cronin P, Ryan F, Coughlan M. Undertaking a literature review: a step-by-step approach. <http://dx.doi.org/10.12968/bjon200817128059> [Internet]. 2013 Sep 27 [cited 2023 Jan 3];17(1):38–43. Available from: <https://www.magonlinelibrary.com/doi/10.12968/bjon.2008.17.1.28059>