



Ministry of Health,
Family and Welfare

MALDIVES HEALTH RESEARCH BULLETIN

VOLUME XI

FOREWORD

A strong health system depends on the knowledge we generate and how we use it. Health research helps us understand the needs of our communities, improve services and make informed policy decisions. The Ministry of Health, Family and Welfare is committed to strengthening health research and promoting the use of evidence across the Maldives.

The Maldives Health Research Bulletin brings research relevant to our country together in an accessible publication. This eleventh volume presents 12 research abstracts, provides information on ongoing and newly approved studies, and highlights national health research priorities and the work of the National Health Research Council. It offers researchers, health professionals, students and policymakers a way to learn from work already undertaken and identify questions that deserve further attention.

The Ministry of Health, Family and Welfare is committed to supporting research that is relevant, rigorous and useful in practice. I hope this bulletin encourages collaboration across institutions and, above all, helps turn research findings into better policies, services and health outcomes for the people of the Maldives.

I extend my appreciation to the researchers, reviewers and all others who contributed to this edition.

Geela Ali

Minister of Health, Family and Welfare

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Fetal outcomes in gestational diabetes mellitus (GDM): A retrospective case- control study at Indira Gandhi Memorial Hospital (IGMH)

Aishath Hanaa, Fathimath Shaana, Aminath Raaniya Nasir, Shamra Ali & Razan Ali
01st January 2024 – 31st December 2024

Background

Gestational diabetes mellitus (GDM) is a condition that affects millions globally, with a higher incidence within the Southeast Asian region when compared with other parts of the world. Despite that, there has been no research done within the Maldives to study GDM and investigate how it may affect fetal outcomes and neonatal health.

Methodology

This research is a retrospective case-control study involving 280 age-matched pregnant women with and without GDM presenting to Reproductive health center (RHC) of Indira Gandhi Memorial Hospital (IGMH) and National Diabetes Center (NDC), from January 2024 to December 2024. For the GDM cases, individuals were identified and selected from the birth registry of RHC for which age-matched healthy individuals (controls) were selected.

Results/findings and implications

The results showed there was an increased likelihood for the GDM cohort to have higher Amniotic Fluid Index (AFI) (OR = 2.414, $p = 0.048$), preterm delivery (OR = 2.416, $p = 0.047$), fetal distress (OR = 2.692, $p < 0.001$), Large for Gestational Age (LGA) (OR = 3.281, $p = 0.002$), low 1-minute APGAR scores (OR = 6.472, $p = 0.016$) and Neonatal Intensive Care Unit (NICU)

admission (OR = 1.738, $p = 0.023$).

Conclusion

Neonates born to mothers with GDM had an increased risk of elevated AFI, preterm delivery, fetal distress, LGA, low 1-minute APGAR score and NICU admission, with fetal distress and LGA being more significant. These findings highlight the importance of early screening, diagnosis, and the management of GDM to improve subsequent fetal outcomes.

The association between post operative complications of circumcision and body mass index in pediatric population in a tertiary center in the Maldives

Dr Abdulla Ubaid,
07th June 2023 - 30th August 2023

Background

Ritual male circumcision is one of the most common surgeries performed in pediatric populations globally, often driven by religious, cultural, or medical reasons. In Muslim and Jewish communities, it is a mandatory practice. While the American Academy of Pediatrics notes that the health benefits of circumcision outweigh the risks, the benefits do not justify universal circumcision for all boys. Complication rates from circumcision range from as low as 0.2% to as high as 12.6%, with bleeding being the most frequently reported issue, followed by infections, adhesions, and other complications.

Methodology

This is a quantitative observational study conducted at the Department of Surgery in Indira Gandhi Memorial Hospital (IGMH). The study included 143 participants who registered for routine circumcision between July 1-31, 2022. Data collection involved a series of questionnaires administered at different stages of the circumcision process, from the procedure to 30 days post-operation. The study employed a unified circumcision method for consistency and used instruments such as a sterile skin marker and bone cutter. A non-linear correlation test was employed to assess the relationship between BMI and post circumcision complications such as bleeding, fibrosis, and scar

formation. Data analysis was conducted using Pearson's correlation, paired sample t tests, and multiple linear regression techniques via SPSS version 22.

Results/findings and implications

Among the respondents, 57% had a BMI value that ranged between 14 and 19.9, while 31% had a BMI that ranged between 11 to 13.9. This means most of the circumcised boys are at normal weight. The findings reveal a significant negative correlation between height and bleeding. The paired sample t-test results indicate that children's complaints about swelling were significantly more frequent than clinical findings, suggesting that swelling is a critical post-operative complication. Multiple linear regression analysis showed that both height and BMI significantly increase the likelihood of post-operative bleeding. Conversely, body weight itself was found to have a negative impact on bleeding.

Conclusion

This study identifies height, weight, and BMI as crucial determinants of post-operative complications, particularly bleeding, following circumcision. It highlights the importance of BMI in the success or failure of circumcision surgeries. This is likely the first study of its kind conducted in the Maldivian context, offering valuable guidance to practitioners on improving

surgical consultation and procedures. The study suggests that medical practitioners should implement awareness programs or effective consultation measures to mitigate post-operative complications prior to circumcision. The findings could inform the development of a guidebook to help prevent post-operative complications, especially bleeding in children with a high BMI, prior to surgery.

A prospective, multicentric, non-interventional data collection registry to report the safety & feasibility of 3D OCT-guided distal left main bifurcation percutaneous coronary intervention with everolimus-eluting stents in South Asian setting

Dr. Mohamed Shaneez Najmy

01st November 2021 - 01st November 2023

Background

Optical coherence tomography (OCT)-guided percutaneous coronary intervention (PCI) enhances treatment of complex coronary artery lesions, including left main (LM) disease, by enabling lesion morphology assessment and stent optimization, thereby reducing major adverse cardiac events (MACE). This study evaluated the feasibility, safety, and mid-term outcomes of OCT-guided PCI for distal LM bifurcation lesions in the South Asian population.

Methodology

This prospective, multicenter, observational registry included 100 consecutive patients (aged 20–80 years) undergoing OCT-guided PCI for distal LM bifurcation lesions. The primary endpoint was procedural success, defined as residual angiographic stenosis of <30%, thrombolysis in myocardial infarction (TIMI) 3 flow in all major branches, and adequate stent expansion (≥80%) in all vessels. Secondary endpoints included MACE, all-cause mortality, myocardial infarction, stent thrombosis, and target vessel revascularization (TVR) at 12 months.

Results/findings and implications

The primary endpoint was attained in 85% of the patients. At the 12-month follow-up, MACE

occurred in 1% of patients, including one (1%) cardiac mortality and one (1%) in-hospital definite stent thrombosis. No TVR or stroke was observed. The mean contrast volume used was 190 (71.3) mL, with significantly lower usage in the provisional stented group (171.7 mL) compared to the 2-/3-stented group ($p<0.001$). The cumulative impact of OCT guidance was observed in 53% of the included patients (pre-procedure: 49%, post-procedure: 13%). An extended follow-up of 18 months showed no additional MACE rates.

Conclusion

OCT-guided PCI was found to be safe for distal LM bifurcation lesions with good procedural success and low rates of MACE and stent thrombosis.

Association of sleep quality and smartphone addiction with academic performance among MNU students

Mohamed Afrah & Dr. Aishath Naila

13th September 2022 - 13th Feb 2023

Background

Research shows that poor sleep and smartphone addiction are common complaints that potentially harm university students' academic performance. The aim of this study was to investigate the association between smartphone addiction, sleep quality and academic performance.

Methodology

This was a cross-sectional quantitative study that included 446 students from the Maldives National University (MNU), from the second semester of first year through final year. For data collection a validated survey questionnaire by using a google form was distributed among students via Student Support Services, MNU Student Union (MNUSU), social media and physical data collection at MNU faculties using convenient sampling method. The questionnaire consisted of demographics and the Pittsburgh Sleep Quality Index (PSQI) and the Smartphone Addiction Scale Short Version (SAS-SV). A screenshot of digital wellbeing dashboard of the student's smartphone was collected to estimate the number of hours they spent using smartphone. The results were analyzed using SPSS version 24 where descriptive and inferential analysis was performed.

Results/findings and implications

The results indicated that a high proportion (61.2%) of students were addicted to their smartphones while 51.6% reported poor sleep

quality. There was a significant fair negative correlation between smartphone addiction and academic performance ($r(446) = -0.3, p < 0.001$). However, there was no significant correlation between sleep quality and academic performance ($r(446) = -0.07, p = 0.118$). This study indicated that smartphone addiction was a significant predictor of academic performance ($\beta = -0.57$; 95 % CI, -0.699, -0.434; $p < 0.005$), whereas the other independent variables including sleep quality were not. The findings of this study states that poor sleep quality and smartphone addiction were negatively associated with academic performance among the students at MNU. This suggests that academic performance could be potentially improved by improving sleep quality and reducing smartphone addiction among this population. Nevertheless, it should be kept in mind that a specific population was chosen to conduct this study.

Conclusion

This study demonstrated that smartphone use has a considerable negative impact on MNU students' academic performance. Students can improve their academic performance and overall well-being through interventions designed to reduce smartphone addiction, encourage better sleeping habits, provide academic support, consider the impact of social media on academic performance, and encourage a balanced approach to technology use.

A silent crisis: Mental health challenges among Maldivian students

Dr Shareefa & Dr Aminath Shafiya Adam

01st January 2025 – 27th December 2025

Background

Mental health challenges among young people can manifest in various ways, including anxiety, depression, attention-deficit/hyperactivity disorder, and conduct disorder. These conditions can significantly impair a child's ability to learn, concentrate, and interact positively with peers. The primary aim of this study is to understand this landscape to inform policy, specifically evaluating the prevalence of internalizing disorders, identifying cultural and environmental contributing factors, and examining the accessibility of school-based services.

Methodology

The study employed a mixed-methods sequential explanatory design, integrating quantitative surveys with qualitative interviews. Quantitatively, a validated questionnaire was administered to a representative sample of 418 students across nine geographic regions, including the Greater Malé Area and various atolls. This data was analyzed using SPSS to identify patterns in the students' mental health. Qualitatively, purposive sampling was used for semi-structured interviews and focus groups with teachers, parents, counselors, and administrators. This allowed for a thematic analysis of experiences, ensuring the data reflected the diverse realities of the Maldivian educational context.

Results/findings and implications

The findings reveal a high prevalence of internalizing symptoms, specifically anxiety,

persistent worry, and sleep disturbances. These issues are most acute among older adolescents in Grades 10–12. Quantitative data, supported by qualitative accounts, indicates that these challenges are primarily driven by immediate social and environmental factors such as bullying, social isolation, and family instability. Academic pressure and cultural stigma further exacerbate these issues, often discouraging families from seeking necessary care.

Conclusion

The integrated results suggest that emotional distress is inextricably linked to adverse school climates and home environments. Consequently, there is an urgent need for stakeholders to implement standardized staffing, universal screening for internalizing symptoms, and community-wide awareness campaigns to combat stigma.

Mediation role of depression on the relationship between peer victimization and hopelessness as a proximal risk factor for suicidal ideation among adolescents in Greater Male' Area

Mariyam Razaan Ibrahim
21st July 2021 – 23rd August 2023

Background

Suicide is a leading global health crisis, ranking as the third most common cause of death among adolescents worldwide. Adolescence is a critical period that begins with puberty, and is characterized by the development of aspects such as, psychological, social, biological, cognitive and emotional. One of the most significant risk factors for suicide in adolescence is a lack of social support, which plays a central role in fostering emotional resilience and psychological stability. Insufficient peer support can severely impact mental well-being, leading to negative outcomes such as depression, low self-esteem, and feelings of rejection. These experiences of social isolation and alienation are often heightened in adolescents who face peer victimization, increasing their emotional distress. Feelings of powerlessness and helplessness are common consequences of prolonged victimization and lack of peer support, further contributing to the development of depressive episodes. These episodes can become severe and chronic, thereby creating a dangerous cycle that significantly increases the risk of suicidal ideation and behaviors.

The current study aims to explore if and how peer victimization contributes to the development of depression and how depression, in turn, mediates the relationship between peer victimization and risk of suicidal ideation, to

provide a deeper understanding of the psychological impact of peer victimization and inform prevention strategies and address mental health issues among adolescents in Greater Male Area.

Methodology

This study adopted a cross-sectional quantitative research approach and data for this research was collected through an online survey design questionnaire. The population for this study consisted of adolescents aged 15-18 years within the Greater Male' Area, and a convenience sampling method was used to recruit participants. The survey included information sheet, informed consent from both parents and participants, demographic questionnaire, Beck Hopelessness Scale, Patient Health Questionnaire for Adolescents, and Adolescent Peer Relations Instrument – Target Subscale. Data was analyzed using PROCESS macro in SPSS to assess the mediating effect of depression and correlation analysis was conducted to determine the strength and direction of the associations between the variables.

Results/findings and implications

Depression fully mediated the relationship between peer victimization and hopelessness as a risk factor for suicidal ideation. Peer victimization does not result in hopelessness directly but might lead to suicidal ideation due to

other risk factors. The results of the current study give important insight on the mediating role of depression in the relationship between peer victimization and hopelessness as a predictive factor for suicidal ideation. It shows that peer victimization can cause depression and in turn may lead to hopelessness which could increase the risk of suicidal ideation among adolescents in Greater Male' Area.

Conclusion

With the increase of peer victimization and suicidal ideation in this population, preventive measures such as positive coping strategies should be applied at depression level so that it does not lead to hopelessness, thereby, decreasing the risk of suicidal ideation (Benatov et al., 2020). However, it also shows that suicidal risk assessments for victims of bullying should not only focus on hopelessness although it is a proximal risk factor. Furthermore, with the evidence of the negative effects of peer victimization on the mental health of adolescents, educators and other institutes can work on preventing peer victimization. Increasing social support, especially from adults can decrease the impact of depression due to victimization (Hoffmire, et al., 2024).

Rituximab in childhood nephrotic syndrome: outcomes and experience of CD19 guided dosing in the Maldives

Dr. Jaya Prakash Nath Ambinathan, Dr. Aishath Thihnan Solih & Dr. Alessandra Martino
20th October 2025 – 20th November 2025

Background

Childhood nephrotic syndrome often requires prolonged immunosuppression, increasing the risk of significant adverse effects. Rituximab, a CD20-targeting monoclonal antibody, has emerged as an effective steroid-sparing agent. However, evidence on real-world outcomes and the use of CD19-guided rituximab dosing remains limited, especially in resource-constrained settings such as the Maldives

Methodology

A retrospective, single-centre study was conducted at a tertiary care hospital in the Maldives, enrolling children with childhood nephrotic syndrome who received at least one dose of rituximab and had a minimum post-infusion follow-up of six months at our center. Data collected included demographics, disease characteristics, prior and concurrent immunosuppressive therapy, clinical outcomes, CD19 B-cell trends, relapse episodes, and adverse events. Rituximab was administered as 375 mg/m² per dose, with dosing intervals and adjunct therapies individualized based on clinical status and CD19 levels, where available.

Results/findings and implications

Ten patients (mean age at onset 2.29 ± 0.64 years; 5 males) with steroid sensitive and resistant nephrotic syndrome were included. All had failed at least one steroid-sparing agent before rituximab. CD19-guided dosing was

applied in 9 out of 10 patients. At median follow-up of 17.5 months, 7 patients achieved sustained remission with only 3 patients experiencing a single relapse each. Among this, two patients required multi-target therapy. One patient was successfully converted from prolonged calcineurin inhibitors (CNI) use to rituximab maintenance. Adverse effects were rare, with only one mild infusion reaction reported. Need for outsourced CD19 monitoring was a logistical challenge.

Conclusion

Rituximab, particularly when combined with CD19-guided dosing, is effective and well-tolerated in Maldivian children with childhood nephrotic syndrome.

Epidemiology of ocular toxoplasmosis in Maldives

Fathimath Rifa Moosa, Aish Afnan Ahmed, Aishath Shadha Nashid, Fathimath Zukaa

Saleem & Firasha Hassan

01st February 2024 – 01st January 2025

Background

The aim of the study was to describe the demographics and clinical characteristics of patients diagnosed with ocular toxoplasmosis (OT) at IGMH and well as a subset of cases retrieved from Aasandha database from 2021-2024. Additionally, the study aimed to investigate any association between visual acuity and age, gender, sociodemographic factors, contact with pets, comorbidities and clinical characteristics of patients diagnosed with OT.

Methodology

A retrospective cross-sectional research design using data from January 2021 to December 2024 was utilized to assess the epidemiology of OT in the Maldives. The study population consisted of patients documented with the diagnosis of OT in IGMH as well as from a subset of data from Aasandha portal from January 2021 to December 2024. This census sampling method was used to select participants from the target population based on inclusion criteria. Descriptive analysis of the data in the form of frequency, percentage, mean, mode and median was carried out. Chi-square analysis was carried out to determine any significant association

were expanded to emphasize visual outcomes due to their significance.

Conclusion

A statistically significant association was found between visual acuity and three key variables: location of lesion, type of scar, and comorbidities. These findings are important while assessing patients with OT and for guiding the management plan, enabling appropriate interventions without further visual deterioration.

Results/findings and implications

A statistically significant association was found between visual acuity and three key variables: location of lesion, type of scar, and comorbidities. Visual outcomes were included in the title and the literature review and discussion

Predictive factors for severe dengue in patients admitted in the pediatric ward of IGMH from 2021-2024

Maain Rasheed, Aishath Luyoona Niyaz, Fathmath Zaina Azeem, Hawwa Theeba,
Mohamed Maaish & Nafha Ahmed
17th December 2024 – 03rd March 2025

Background

Dengue fever is a leading cause of hospitalization in the pediatric age-group. As dengue can progress rapidly to severe forms, identifying factors related to development of severe dengue would aid clinicians to help decrease the need for hospitalizations and identify the right patient for hospital admission.

Methodology

This retrospective study was based on medical records of pediatric patients with dengue infection admitted in IGMH. Census sampling was performed and cases were classified according to the WHO 2009 Dengue guideline, and statistical analysis was performed using SPSS. Chi-Square test for age and gender, and Mann-Whitney U test for the laboratory parameters (white blood cell count, platelet count, albumin, AST and ALT) were carried out between severe and non-severe dengue patients. Identification of the optimal cutoff values was done by application of ROC analysis, followed by a univariate logistic regression.

Results/findings and implications

From a total of 232 patients with dengue fever, 10.8% had severe dengue. While males were predominant from the total study population (60.8%), there were more females diagnosed with severe dengue (64%). With the AUC for the ROC curve more than 0.7 only for AST and ALT,

univariate logistic regression showed that female sex (OR 3.13), AST ≥ 106.5 units/L (OR 11.33 and ALT ≥ 49.5 units/L (OR 6.93) on days 3-5 of fever were strong predictive factors for severe dengue.

Conclusion

The findings indicate that female sex, along with higher levels of AST and ALT may serve as predictive markers for the development of severe dengue in the pediatric population.

Factors associated with e-cigarette use among higher education students in Male', Maldives

Rishana Naseer

01st February 2024 – 01st October 2024

Background

The purpose of this study is to identify the prevalence of e cigarette usage among higher education students along with identification of factors contributing to e-cigarette usage and to examine the relationship between these factors and e-cigarette use among higher education students in Male', Maldives.

Methodology

A descriptive cross-sectional study was conducted among 397 students from Maldives National University (MNU), who were recruited by systematic random sampling method. Data was collected using a close ended self-administered questionnaire. SPSS v25 was used for data analysis while chi-square analysis and binary logistic regression analysis was conducted to examine the association between determining factors and e-cigarette use .

Results/findings and implications

The study reported that 28% the students used an e-cigarette with 4.5% reporting everyday use of e-cigarette. Chi-square analysis revealed that gender, having a smoking family member and having a smoking friend or peer were significantly associated with e-cigarette use. Binary logistic regression indicated a significant association between e-cigarette accessibility and use ($p = <0.001$) with an odds ratio of 0.462, CI (0.403-0.530).

The study revealed that MNU students had moderate level of knowledge about e-cigarette. This indicates a need for more targeted evidence-based education and awareness programs about e-cigarette and its harmful effects at community level and national level. The study also revealed that e-cigarette use is more prevalent among youths of age between 18-19 years indicating a need for more age specific education programs targeted to these age groups. It is recommended that the Ministry of Health and the Ministry of Education intensify health education on the dangers of e-cigarette use at all schools and education facilities with specific consideration on targeting these age group of students.

Furthermore, public health officials must integrate social media channels to disseminate education on the hazardous effects of e-cigarettes. For instance, advertisements regarding websites and information on the detrimental effects of e-cigarettes may be displayed between videos on TikTok, while social media celebrities can be utilized to motivate their followers to quit e cigarette habit. The study revealed a significant influence of peer pressure on students' behavior. Involving students and designing peer-led health promotion activities and programs can have a huge impact on the program's effectiveness and sustainability. The study also revealed that e-cigarettes are easily accessible to individuals

with most of the students having access to e-cigarette through friends and vape shops. The study also revealed a significant association between e-cigarette accessibility and e-cigarette use, suggesting that these community factors largely influence the updated of e-cigarettes. While there are policies and laws enforced on conventional cigarettes such as age restrictions and marketing restrictions, these restrictions are not followed for e-cigarettes and e-cigarette products. Therefore, it is recommended to enforce these restrictions on e-cigarettes at government level. Moreover, strict policies on the import, distribution, and marketing of e-cigarettes are recommended.

It is also recommended that the Maldives Food and Drug Authority (MFDA) increase its involvement by prohibiting counterfeit e-cigarette pods and formulating more regulatory measures, particularly those aimed at young e-cigarette users. Higher penalties must be enforced for those who supply e-cigarette products to underage children. Stricter punishments must also be in place for those who purchase e-cigarette products illegally.

Conclusion

The current study was the first study in Maldives that determined the prevalence of e-cigarette use among university students and examined the association between e-cigarette use and its individual, social and community variables. The finding of the study indicate that e-cigarette use among students was low with majority of female students using e-cigarette compared to male students. A strong association was observed between e-cigarette use behavior with having a friend who smokes e-cigarettes and having a family member who smokes e-cigarettes.

Knowledge of e-cigarette was relatively moderate among the students with majority of student's stating that e-cigarettes are less addictive compared to traditional cigarettes. Evidence based educational intervention are recommended to eliminates these misconceptions and raise awareness about the health hazards of e-cigarette use. The mean knowledge score. K 2.86 suggest a knowledge gap among students. Moreover, the study revealed a higher incidence of e-cigarette use among students aged between 20-30 years. These findings suggest that young adults are prone to e-cigarette use behavior demanding a need for more focused health education campaign and programs targeted to these population groups. Moreover, e-cigarettes are easily accessible to students with most of the students' obtaining e-cigarettes from their friends or buying directly form a designated vape shop. Therefore, strict policies and regulation are to be enforced on e-cigarette import, distribution, and marketing such as imposing penalties and stricter punishments on illegal distribution and selling of e-cigarettes.

Association between vitamin D deficiency and maternal and fetal outcomes

Mariyam Luyoona Shahid, Aminath Juhaina Shakir, Mariyam Shaffa Waheed, Anisath Abdul Sattar, Rana Mohamed Saeed & Fathimath Zaya Shareef
01st January 2023 – 01st December 2024

Background

Identifying the association between vitamin D deficiency and pregnancy outcomes, to describe vitamin D levels in Maldivian pregnant women who have consulted at IGMH reproductive clinic from Jan 2023 – Dec 2024 and find out the association between vitamin D deficiency and diabetes, hypertension, preterm birth and birth weight.

Methodology

Hospital based retrospective study conducted from Jan 2023 – Dec 2024 census sampling with a sample size of 158.

Results/findings and implications

Chi-square analysis was conducted and diabetes mellitus vs vitamin D levels were significant with a P value of 0.007. All other factors were insignificant. Changes can be made by giving routine vitamin D testing in pregnant women and giving proper patient education of risks associated with vitamin D deficiency and also having poor glycemic control.

Conclusion

Improve overall wellbeing of pregnant women and importance of early intervention and screening so that the risks can be managed effectively.

Characteristics of tobacco users who visited the Tobacco Cessation Clinic at Dhamanaveshi, Male' city, Maldives, from 2017 – 2023: A retrospective cross-sectional study

Dr Abdul Azeez Hameed
18th September 2023 - 02nd May 2024

Background

This baseline study was conducted to determine the characteristics of tobacco users attended to tobacco cessation clinic at Dhamanaveshi, Male', Maldives. This includes the demographic features, practices related to tobacco use, nicotine dependence, previous cessation history, follow up status with relapses and quit rate among tobacco users and concluded with assessing the differences in nicotine dependence with consideration to demographic characteristics and practices of tobacco use among tobacco users.

Methodology

This is a retrospective, quantitative study conducted using secondary data collected through tobacco cessation assessment forms. The study utilized census sampling technique. During the given time, total 593 tobacco users attended, however after exclusion of repeated and misplaced assessment forms, total 544 cases were considered as final sample size. Data collection sheet was developed after reviewing tobacco cessation assessment forms. Data executed by utilizing SPSS version 21.0, both descriptive and inferential tests were run accordingly.

Results/findings and implications

Findings indicated 39.6 years as mean age for tobacco users. Majority (90.8%) of tobacco users

were male and married (59%). The current study revealed that majority (72.7%) of tobacco users commenced tobacco use before 18 years of age. Majority (83.3%) of the tobacco users consumed more than 10 cigarettes daily and 94.7% consumed tobacco within one hour of wake up. Less than half (45.2%) of study subjects had moderate nicotine dependence, and 21.5% had severe nicotine dependence. As per the study, less than half (47.6%) had done follow up after initial assessment. Based on the last documented follow up status and self-reported history, it was revealed that only 12.5% had relapsed and 17.3% had quit.

Conclusion

The study concluded majority of tobacco users initiated the habit before age 18 and most tobacco users have moderate to higher nicotine dependency. Awareness on tobacco health risks and benefits of quitting, targeting children and young adults are required. Orientation and training needs to be conducted on cessation services to healthcare workers. Furthermore, introduction of nicotine testing and conduction of a prospective study are also required to analyze the perception of people towards the cessation clinics, assessing reasons for relapse and barriers for quitting.

NATIONAL HEALTH RESEARCH COUNCIL (NHRC)

The National Health Research Council (NHRC) was formed on 20th May 2019 under the Health Services Act (29/2015) and Health Research Regulation (R-1006/2019). The responsibilities of the council include undertaking the scientific and ethical review of all types of health research proposals, including clinical trials, monitoring approved research throughout the study until and after completion by examining the annual reports and final reports, advising the Minister of Health on issues related to health research and investigating issues and complaints received regarding health research and report to the relevant authorities.

Previously, the National Health Research Committee was established in 1999, as a strategy outlined in the Health Master Plan 1996-2005 to strengthen the development and implementation of research relating to the health sector. With the establishment of the National Health Research Committee, all health-related research had to be submitted to the committee and approval sought before implementation. In this regard, the Ministry of Health issued a circular (23-C3/99/C-24) on 15th August 1999 to implement this strategy effective from 01st September 1999.

The NHRC has received several research proposals for approval. A guideline was developed to assist researchers such as medical and nursing practitioners, program managers and students in developing research proposals for submission to the NHRC.

REPRESENTATIVES IN THE NATIONAL HEALTH RESEARCH COUNCIL

1. Ministry of Health / Director General of Health Services
2. Ministry of Health / Health Information Management and Research
3. Ministry of Health / Maldives Food and Drug Authority
4. Ministry of Health / Health Protection Agency
5. Ministry of Health / Quality Assurance and Regulation
6. Ministry of Health / Dhamanaveshi
7. Ministry of Education
8. Ministry of Islamic Affairs
9. Attorney General's Office (AGO)
10. Maldives Bureau of Statistics (MBS)
11. Faculty of Health Sciences/ Maldives National University (MNU)
12. Islamic University of Maldives (IUM)
13. Indira Gandhi Memorial Hospital (IGMH)
14. ADK Hospital
15. Maldives Nurses Association (NGO)
16. Individual researcher

RESEARCH SUBMISSION AND APPROVAL PROCESS



Application Submission

- Submit the research proposal through **one.gov.mv** portal service along with the required documents.
- Required documents: Completed application form, university ethics approval letter & supervisor's endorsement letter (for students), CVs and no objection letter from institute of data collection.



Initial Screening

- The NHRC secretariat will check the proposal for completeness and NHRC guideline compliance.
- Researcher will be notified whether the proposal was accepted or not through the **oneGov** portal.



Proposal Review

- NHRC members will review the proposal during the weekly meeting.
- Comments will be shared with the researcher through the **oneGov** portal.
- The normal duration for the review process is 1-3 months.



Proposal Resubmission

- Once the amended proposal is received, members will review the amended proposal.
- Researcher will be notified via **oneGov** portal if further amendments are required.



Proposal Approval

- Once the proposal meets all the requirements, NHRC approval letter shall be granted.
- NHRC approval letter can be accessed by the researcher through the **oneGov** portal

NATIONAL HEALTH RESEARCH COUNCIL APPROVED RESEARCH LIST 2025-2026

- Why I Became a Nurse? A Descriptive Phenomenological Study of Male Nurses in The Maldivian Context
- Impact of Climate Change on Communicable Diseases in The Maldives
- The Need of Structured Debriefing Post Cardiac Arrest Resuscitation Among ICU Healthcare Professional
- Study On Factors Influencing Poor Medication Adherence Among Patients with Diabetes in Faafu Atoll Registered in DHIS2 System
- Assessing the Prevalence and Determinants of 'Ill-Defined Codes' in The Cause of Death Data: Insights from the Maldives
- Relationship Between Sleep Quality and Academic Performance in Maldivian College Students
- Exploring Workplace Culture on Employee Willingness to Take Mental Health Leave: Addressing Stigma and Psychological Well-Being
- Assessing the Imbalances of Work Life Stress Among Maldivian Office Workers
- A Phenomenological Study on Lived Experience of Substance Users from Dysfunctional Families
- Influence of Student Well-Being on Student Academic Performance and Career Preparedness: The FHTS Experience
- Perception, Attitudes and Barriers to Interprofessional Collaboration Among Healthcare Professionals at IGMH And KRH
- The Relationship of Parental Separation on A Child's Academic Performance
- Patient's Beliefs About Low Back Pain Diagnosis and Managaement Among Maldivian Adults - A Qualitative Study
- Physical And Emotional Challenges of Polycystic Ovary Syndrome (PCOS)
- Exploring The Need to Belong: A Qualitative Study on Group Dynamics
- Relationship Between Quality of Life and Nicotine Dependence
- Awareness Of Urinary Incontinence Among Community Dwelling Adults in the Greater Male' City: A Cross-Sectional Study
- Prevalence Of Fall Risk and Associated Factors Among Elderly People Residing in GA Atoll in the Maldives
- Forgiveness and Mental Well-Being
- Knowledge, Attitude and Practice of Injury Prevention Strategies Among Recreational Futsal Players in The Maldives
- Knowledge, Attitude, And Practices of Antental and Postnatal Exercises Among Women of Reproductive Age: A Cross-Sectional Study
- Physiotherapy Management of Low Back Pain by Physiotherapists Practicing in The Maldives: A Mixed Methods Study
- Evaluating The Outcomes of Newly Initiated Laparoscopic Surgeries in A Secondary Care Hospital: A Step on The Road to Tertiary Care

- Relapse Realities: Unpacking the Factors Behind Substance Use Recurrence in Maldives
- Mediation Role of Depression on The Relationship Between Peer Victimization and Risk of Suicidal Ideation Among Adolescents in Greater Male' Area
- Lived Experiences of Family Estrangement by Maldivian Adults: Cultural Impact on Psychosocial Lives
- Impact of Social Media on Mental Wellbeing
- Investigating The Relationship Between Emotional Trauma and Resiliency Among Law Enforcement Personnel
- Factors, Barriers, and Key Areas of Improvements to Effective Healthcare Waste Management Practices Among Nurses Working in Tertiary Hospitals of the Maldives: A Mixed Methods Study
- Parenting Styles and Childhood Trauma: Examining Their Relationship Among Young Adults (19–29) in the Greater Malé Region, Maldives
- The Relationship Between Unemployment and Mental Wellbeing Among Malé Youths
- Global School-Based Student Health Survey (GSHS)
- A Silent Crisis: Mental Health Challenges Among Maldivian Students
- Risk Factors and Practices of Eczema in The Greater Male' Region of The Maldives
- Exploring Burnout Among Female Teachers in Hulhumale', Maldives
- Factors Affecting Dementia: A Study Conducted in HDH Kulhudhuffushi, Maldives
- Fatigue Among Working Students in The Maldives
- Awareness, Perceptions, And Behaviours Influencing Youth Support for The E-Cigarette Ban in Addu City, Maldives: A Cross-Sectional Exploratory Quantitative Study
- Factors Influencing Missed Nursing Care Among Government Hospital Nurses, The Republic of Maldives: A Mixed Methods Research
- The Impact of Spirituality on Psychological Distress Among Cancer Patients in Maldives
- A Comprehensive Study of Juvenile Offense in The Maldives
- Exploring The Lived Experience of People with Dementia and Their Care Givers in The Maldives
- Rituximab in Childhood Nephrotic Syndrome: Outcomes and Experience of CD19 Guided Dosing in The Maldives
- Hospital Based Study on Factors Determining the Decision for Cesarean-Sections and Vaginal Deliveries in Indira Gandhi Memorial Hospital (IGMH)
- A Comparative Study on Stress, Anxiety, Depression and Life Satisfaction Among Working and Non-Working Mothers in Male City
- Relationship Of Internet Addiction on The Mental Health of Young Adults in Addu City
- Holding The Unknown Together: A Qualitative Exploratory Study of Adults Experiencing Uncertainty, Anxiety, and the Role of Support Groups Among Adults Following Cancer Diagnosis
- A Qualitative Exploration of Emotional and Psychological Struggles in Recovering Addicts
- Relationship Between Islamic Religiosity and Mental Health Conditions Among Maldivian Adults Residing in Greater Male' Area
- Impacts of Cancer on Maldivian Men and Their Adjustments to Life: A Qualitative Study

- Exploring The Challenges Experienced by Psychologists in Providing Mental Health Services in Maldives
- Risk Factors for Non-Communicable Disease Among Adults Residing in a Selected Community: A Descriptive Secondary Analysis from Maldives
- Validation of the Dhivehi Translation of PHQ-9 in the Maldivian Population
- Relationship Between Workplace Stress and Mental Health Issues of Addu City Civil Servants
- The Associations Between Work Resilience and Compassion Fatigue, Burnout and Compassion Satisfaction Among Nurses in Addu Equatorial Hospital
- Normal Kidney Size Evaluation Using Ultrasound and Computed Tomography Database in Maldivian General Population Presenting to Tertiary Hospital From 2021 To 2025
- Social Isolation and Mental Wellbeing Among Stay-At-Home Mothers in Maldives; The Role of Perceived Loneliness and Social Support.
- Mass Casualty Incidence of Suspected Scombroid Poisoning Among 36 Cadets: Clinical and Systems-Level Insights from A Case Series in an Island Emergency Department.
- Knowledge, Attitude, And Practice Regarding Drug Abuse and Disorder Among the Maldives National University Male' Campus Students
- Diabetic Care in The Maldivian Healthcare System: Patient Perspectives and Challenges
- Iron Deficiency Anemia and Correlation with Vitamin D Deficiency in Pediatric Population Attending IGMH From January 2023 to December 2024
- Maternal Factors Contributing to Prematurity in Babies Delivered At IGMH
- Knowledge, Attitude, And Practices Regarding Diabetes Mellitus (Type 1 And Type 2) Among A Higher Education Institute's Students in Male' City
- Biopsychosocial Determinants of Chronic Pain Among Adults Consulting in Indira Gandhi Memorial Hospital
- Parental Experience with Dental Care and Oral Health Status of Special Healthcare Needs School Children in Greater Male' Region, Maldives
- Healing The Mind and Spirit: Perceptions and Practices of Ruqyah Practitioners in The Maldives
- Investigating The Relationship Between Age and Motorcycle Accidents in Maldives
- Claustrophobia As a Barrier to Diagnostic Imaging: A Cross-Sectional Study from The Maldives
- "Resilience in Motion:" How Maldivian Athletes Manage Performance Pressure in Competitive Sports
- Postoperative Delirium-Incidence & Contributing Factors in Adult Surgical Patients During the Perioperative Period in A Tertiary Hospital – A Prospective Observational Study
- Exploring Patient Perceptions of Compassion in Healthcare: A Qualitative Exploration in The Maldivian Context
- Knowledge, Attitude and Practice of Self-Medication Among Students Enrolled in Universities in The Greater Male' Area in January-February Of 2026
- Perceived Stigma in Help Seeking Behavior Among Single Parents in The Maldives
- A Critical Analysis of Violence Incidents in NCMH Inpatient Care Unit, IGMH: Patterns, Contributing Factors, And Preventive Strategies

- The Relationship Between Psychological Flexibility, Adverse Childhood Experiences, and Illicit Drug Use Among Young Adults in Malé, Maldives
- Effect Of Awareness Level on Breast Cancer Screening Behaviour and Barriers Among Working Women: A Cross-Sectional Study Conducted in Greater Male' Area
- Percieved Stress and its Association with Mental Health Challenges Among Police Officers in the Southern Maldives
- Understanding and Assessing Criminal Pathways of a Selected City in Maldives: The When, Why and How
- The Impact of Gaming Frequency on Sleep Quality Among Maldivians Aged 18–30
- Lived Experiences of Single Mothers with Depression: A Qualitative Study in The Maldives
- Knowledge, Attitude, and Practice Towards Obesity Among the Students of Maldives National University in Male' Campuses
- A Single Center Study of Dialysis Adequacy, Cardiovascular Outcomes and Infectious Complications in Chronic Kidney Disease Patients Undergoing Maintenance Hemodialysis in A Tertiary Hospital in Maldives
- The Relationship Between Family Cohesion and Mental Health Resilience Among Young Adults Living in Greater Male' Area
- Mapping the Mind's Return: Narratives of Person's with Substance Use Disorder
- Implementation Of Shared Decision-Making Between Paediatricians and Children and Parents of Children with a Chronic Disease in The Maldives
- Investigating The Relationship Between Physical Activity and Psychological Well-Being of Villa College Students.
- Sleep Quality and Academic Performance in University Students in The Maldives
- Relationship Between Mental Health Literacy and Self-Diagnosis Among Maldivian Youths in Greater Male' Area Using Digital Information Platforms.
- Community Awareness, Lifestyle and Environmental Determinants of Cancer in Fuvahmulah City
- Knowledge, Attitudes, and Best Practices of Primary Caregivers Regarding the Oral Health of Children Aged 6–13 Years in Aminiya School, Malé: A Cross-Sectional Study
- Knowledge, Attitude, and Practice Regarding Polycystic Ovarian Syndrome (PCOS) Among Female Undergraduate Students at The Maldives National University Male' Campus
- Prevalence Of Temporomandibular Disorders (TMD) Among Patients Reporting to Indira Gandhi Memorial Hospital (IGMH)
- Humor As a Coping Mechanism: Associations with Psychological Resilience, Psychological Distress and Emotion Regulation Among Maldivian University Students
- The Effects of Sleep Quality on Academic Performance Among Students in Maldives
- Examining The Relationship Between Perceived Stress and Academic Performance Among Villa College Students
- Knowledge, Attitude, And Practice on Paternal Depression Among Fathers of Infants in Malé, Maldives

HEALTH RESEARCH PRIORITY AREAS (2022-2025)

TOP 10 HEALTH RESEARCH PRIORITY AREAS

- 01 Disease epidemiology, risk factors, prevention and control
- 02 Food and nutrition
- 03 Healthcare quality and safety
- 04 Health promotion
- 05 Health resource allocation
- 06 Advancement of health technology, e-Health, telemedicine
- 07 Clinical studies
- 08 Access to health care
- 09 Health governance, including clinical and public health governance
- 10 Healthy lifestyle

TOP 10 CLINICAL RESEARCH PRIORITY AREAS

- 01 Cancer
- 02 Cardiovascular Diseases
- 03 Mental health, behavioral disorder, and substance abuse
- 04 Kidney diseases
- 05 Endocrine and metabolic disorder, including diabetes
- 06 Respiratory diseases
- 07 Reproductive and maternal health
- 08 COVID-19 and emerging diseases
- 09 Sexual health
- 10 Blood disorders

Note: Health research priority areas for 2026 to 2029 will be renewed this year



Ministry of Health,
Family and Welfare

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