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Definition, causes, and consequences of Hamm (idiom of distress in Arabic) in the Palestinian context: a qualitative study

Abeer A Nasir, Razan Salah, Abla Sayyed Ahmad, Samah Abu Hijleh, Sa'eed Abu Kattab, Alia Al Kurd, Rawan Al Sharif, Raed Amro, Ahmad Khatib, Hana' Mousa, Walaa Shamasnah, Khammisa Shqerat, Rita Giacaman

Abstract

Background Hamm is an Arabic word that is used to express suffering. Idioms of distress are communicated differently in different contexts and cultures. Understanding idioms of distress and symptoms can help in diagnosis and lead to socioculturally sensitive health care.

Methods In this qualitative study, we did semi-structured interviews with men and women of all age groups. Questions focused on the definition, causes, and consequences of Hamm. Responses were analysed by reading and re-reading interview transcripts until themes and subthemes emerged. Oral informed consent was obtained from participants.

Findings 52 participants contributed to this study (26 women, 26 men; half of whom were aged 18–40 years, and the other half of whom were older than 40 years. Hamm was defined by participants as a feeling of discomfort, sadness, stress, anxiety, and fear of the future. Causes of Hamm included social, economic, and political factors and varied between the sexes: young men (aged 18–40 years) reported family obligations, conflicts, unsolved problems, and failure in studies, whereas young women (aged 18–40 years) reported gossip, social traditional restrictions, isolation, and gender-related problems. People older than 40 years reported fear of family separation, fear for children and their future, or the loss of loved ones. Political causes of Hamm included the Israeli occupation, Israeli checkpoints separating families and creating difficult living conditions, Palestinian authority measures, and the burden of colonialism. Young respondents reported that Hamm results in psychological problems apparent from facial expressions and body language, sleeplessness, miscommunication with others, rudeness and aggression, appetite changes, and mental illnesses. Respondents older than 40 years reported deterioration in psychosocial health, including feelings described as broken spirits, and emphasised the physical consequences of Hamm such as diabetes, heart attack, and hypertension.

Interpretation Hamm is precipitated by social, economic, and political factors that negatively affect life quality and human functioning. Hamm is embodied physically and in behaviour, and given that that stress through distress can lead to disease, Hamm could contribute to the occurrence of disease.

Funding None.

Contributors

AAN wrote the Abstract with input from all other contributors. RS wrote the Findings and the Interpretation sections. ASA did the statistical analysis. RG supervised the project. All other authors participated in the field work and data collection. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

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Active surveillance for asymptomatic colonisation by multidrug-resistant bacteria in patients transferred to a tertiary care hospital in the occupied Palestinian territory

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Abstract

Background Active surveillance is important in infection control programmes, allowing the detection of patients colonised with multi-drug resistant organisms and preventing the spread of multi-drug resistant organisms. The aim of this study was to determine the rate of asymptomatic colonisation with multi-drug resistant organisms and the prevalence of each organism in patients transferred to An-Najah National University Hospital, Nablus, occupied Palestinian territory.

Methods Patients transferred from other hospitals between January and December, 2015, were screened at time of admission by taking nasal, groin, and axillary swabs. Swabs were cultured and assessed for the presence of multi-drug resistant organisms (extended spectrum β -lactamase producers, *Pseudomonas aeruginosa*, *Acinetobacter baumannii*, methicillin-resistant *Staphylococcus aureus*, vancomycin-resistant enterococcus, and carbapenem-resistant enterobacteriaceae).

Findings Of the 822 screened patients, 265 (32%) had infections with multi-drug resistant organisms. 394 isolates of multi-drug resistant organisms were obtained: 131 (33%) isolates were extended spectrum β -lactamase producers, 119 (30%) isolates were *P aeruginosa*, 26 (9%) isolates were *A baumannii*, 94 (24%) isolates were methicillin-resistant *S aureus*, 13 (3%) isolates were vancomycin-resistant enterococci, and one (<1%) isolate was carbapenem-resistant enterobacteriaceae.

Interpretation We identified a high prevalence of asymptomatic colonisation with multidrug-resistant bacteria in transferred patients. These findings emphasise the need for a national strategy to combat the spread of multi-drug resistant organisms in the occupied Palestinian territory.

Funding An-Najah National University Hospital.

Contributors

AAT conceived the idea and wrote the Abstract. AD, SZ, SS, and MB screened the samples and identified the bacteria. RD did the data analysis. All authors have seen and approved the final version of the Abstract for publication.

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Risk factors for vitamin A and vitamin D deficiencies in children younger than 5 years in the occupied Palestinian territory: a cross-sectional study

Aeysha Chaudhry, Shakoor Hajat, Najwa Rizkallah, Ala'a Abu-Rub

Abstract

Background Vitamin A and vitamin D are essential for a child's growth and development. However, research on micronutrients in the occupied Palestinian territory is scarce. The aim of this study was to ascertain the prevalence and risk factors of vitamin A and vitamin D deficiencies in children living in the occupied Palestinian territory.

Methods The Palestinian Micronutrient Survey in 2013 measured concentrations of vitamin A in 1054 children (569 children in the West Bank and 485 children in the Gaza Strip) and vitamin D in 150 children (75 children in the West Bank and 75 children in the Gaza Strip). Risk factors for deficiency were assessed in children aged 6–59 months using χ^2 tests and logistic regression with each of the outcome variables of vitamin A and vitamin D deficiencies. A child was considered deficient if serum concentrations were less than 1.05 $\mu\text{mol/L}$ vitamin A or less than 50 nmol/L vitamin D. Multiple logistic regression models were developed to identify independent risk factors. Ethical approval was obtained from the London School of Hygiene & Tropical Medicine.

Findings 771 (73%) children in the survey had vitamin A deficiency, and 91 (61%) children had vitamin D deficiency. Compared with children living in the West Bank, children living in the Gaza Strip were more likely to be deficient in vitamin A (odds ratio 1.34, 95% CI 0.78–2.31) and vitamin D (1.96, 0.67–5.71). Vitamin A deficiency was 1.5 more likely in children with anaemia than in children who did not have anaemia (95% CI 1.08–2.10; $p=0.047$). Vitamin D deficiency was more common in children older than 1 years than in children aged 1 year or younger, and vitamin D deficiency was 2.72 times more likely in girls than in boys (95% CI 1.21–6.01; $p=0.037$).

Interpretation The study provides an initial assessment of the burden of vitamin A and vitamin D deficiencies in the occupied Palestinian territory. However, due to the small sample size, more robust research is needed. The observed low adherence to the full supplementation regimen warrants further research into methods of effective service delivery by health service providers.

Funding None.

Contributors

AC completed this secondary analysis as a part of the Masters of Science requirement at the London School of Hygiene & Tropical Medicine, did the literature review, and formulated the main research question with the aid of SH. SH assisted AC with the methods of data analysis that involved data cleaning and manipulation stages, and initial bivariable and multivariable analyses. SH provided feedback on the development of the Abstract. NR and AR were members of the original study team and took part in the creation of the Palestinian Micronutrient Survey and data collection phases. All authors have seen and approved the final version of the Abstract for publication.

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Red blood-cell alloantibodies in multiply transfused patients in the occupied Palestinian territory: a pilot study

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Abstract

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Background Red blood-cell transfusion has greatly reduced the mortality and morbidity in multiply transfused patients with thalassaemia and sickle cell disease. However, this can result in red blood-cell isoimmunisation with autoantibodies and alloantibodies, which can lead to serious complications such as delayed haemolytic transfusion reaction. The aim of this study was to assess the frequency and types of alloantibodies in multiply transfused patients living in the north of the West Bank.

Methods This pilot study was done at three thalassaemia centres in Nablus, Jenin, and Tulkarm in the occupied Palestinian territory where 300 patients with thalassaemia and sickle cell anaemia regularly receive blood transfusions. Alloantibody screening and identification were done using three-cell and eleven-cell panels (DiaPanel, Bio-rad, Switzerland) respectively. Ethical approval was obtained from Institutional Review Board Centre at Najah University. Written consent was obtained from participants.

Findings 131 patients were enrolled. Of the 20 (15%) patients with alloantibodies, 14 (70%) were diagnosed with β -thalassaemia major, three (15%) were diagnosed with sickle cell anaemia, two (10%) were diagnosed with thalassaemia intermedia, and one (5%) was diagnosed with sickle cell thalassaemia. 13 (65%) patients had alloantibodies that belonged to the Rh blood group system (nine [45%] patients had anti-D; two [10%] had anti-E; one [5%] had anti Rh-C; and one [5%] had anti-c). Anti-Kell was found in seven (35%) patients.

Interpretation Our data showed a quite high prevalence of alloimmunisation in multiply transfused patients. Rh and Kell blood group system antibodies were the only alloantibodies identified in this study. To reduce alloimmunisation, it will be essential to introduce a policy for extended red blood-cell phenotyping of these patients and for the issuing of antigen-matched blood (at least for Rh and Kell antigen).

Funding Najah National University.

Contributors

AY contributed to data collection, data analysis, results, and the writing of the Abstract. SS contributed to data collection, literature review, and figures. OAZ contributed to data collection, study design, and discussion. AAT contributed to supervision and the revision of the Abstract. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

Management of chronic obstructive pulmonary disease exacerbations at the Nasser Medical Complex: a clinical audit

Maha Al-Faqawi*, Yousef Abuowda*, Alaa Eldeen Elmassry, Bettina Böttcher

Abstract

Background The frequency and severity of chronic obstructive pulmonary disease (COPD) exacerbations are the most important determinants of prognosis in COPD. The aim of this study was to assess the management of patients presenting with COPD exacerbations at the Nasser Medical Complex in the Gaza Strip and to compare the management with the Global Initiative for Chronic Obstructive Lung Disease guidelines (GOLD 2015).

Methods We reviewed the medical records of all patients admitted to Nasser Medical Complex and diagnosed with COPD exacerbation between Jan 1, 2014, and Dec 31, 2016. Clinical practice was compared with GOLD guidelines. Ethical approval was obtained from the General Directorate of Human Resources.

Findings 55 patient records were reviewed. The mean age was 66.4 years (SD 8.5), and 54 (98%) patients were male. All patients received inhaled bronchodilators. 36 (65%) patients received short-acting β agonists (SABA), 43 (78%) received short-acting muscarinic agonists (SAMA), 13 (24%) received long-acting muscarinic agonists (LAMA), one (2%) received long-acting beta-agonists (LABA), and 22 (40%) received both SABA and SAMA. 53 (96%) patients received systemic corticosteroids. 43 (78%) patients took more than the recommended 40 mg prednisolone daily. Only 12 (22%) patients received prednisolone as the recommended 5 day treatment course, whereas most patients received a shorter course. Other treatments included oxygen (51 [93%] patients), antibiotics (55 [100%]), antiviral medication (three [6%]), and theophylline (two [4%]).

Interpretation Overall adherence to guidelines was moderately good. All patients received antibiotics, and most patients received oxygen, which are both recommended for all patients. Less useful therapies were rarely prescribed. However, more patients received SAMA than SABA, although SABA is more effective and therefore the first-line treatment for COPD exacerbation. The dose of the most prescribed drug (prednisolone) exceeded the recommended dose. Generally, awareness and adherence to clinical guidelines needs to be improved as part of the fostering of evidence-based medicine. Documentation was of a very poor standard and must be improved to develop a meaningful audit culture.

Funding None.

Contributors

MA-F and YA designed the study and collected the data. MA-F and YA did the data analysis and interpretation. MA-F and YA wrote the Abstract. All authors helped revising the Abstract. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

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Teaching in conflict contexts: dimensions of subjective wellbeing in Palestinian teachers living in Israel and the occupied Palestinian territory

Alessandro Pepe, Loredana Addimando, Jamal Dagdouke, Shafer Yagi, Guido Veronese

Abstract

Background Subjective wellbeing can be defined in terms of good mental state, including positive and negative evaluations that people make of their affect and lives. The aim of this study was to identify specific domains of wellbeing that are salient to Palestinian teachers living in three different contexts (West Bank, Gaza Strip, and Israel) and to map how components of subjective wellbeing vary between the three cohorts.

Methods Data were gathered from interviews of teachers participating in 16 focus groups and from 36 key informants (including psychologists, counsellors, school principals, lawyers). Participants were divided into three groups according to their working locations. Data were analysed by using a mixed-method approach. We used thematic textual analysis, and data were cross-validated with results of statistical significance of lexical specificities (ie, domain-specific terms extracted from specific participants' lexicon) and semantic network analysis.

Findings We interviewed 104 teachers. First-order hierarchical categorisation of thematic analysis revealed four dimensions of subjective wellbeing: psychosocial, professional-related, economic issues, and contextual factors. Some second-order subcategories were quality of teaching work, personality aspects, emotional dimensions, political dimensions, and psychological dimensions. Analysis of lexical specificities and results of semantic network analysis revealed that the importance of different components of subjective wellbeing varied across geographical cohorts. Overall, the results of qualitative and quantitative data analysis showed a clear relationship between the teachers' subjective wellbeing and the places they lived.

Interpretation General themes were common in all populations, but the three cohorts differed in terms of the relative salience of each theme. The prominent themes for the Gazan group were quality of teaching, social dimensions, and religion. The key themes for the West Bank group were economic, social dimensions, and recognition. Salient themes for the Arab-Israeli group were professional, emotional, and social dimensions. Despite some differences between the diasporic Palestinian populations in the occupied Palestinian territories and Israel, the categories of wellbeing are supported in all cohorts.

Funding None.

Contributors

AP did the statistical analysis and wrote the Abstract. LA did the qualitative analysis. GV planned the research and wrote the Abstract. JD did the interviews. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

GV has worked in Gaza recently as a trainer with Mercy Corps, USA, and as a teacher in the MA programme in community mental health run by the Gaza Community Mental Health Programme. Since 2009, GV has contributed to the Remedial Education Centre in Gaza as a consultant, teacher, and project coordinator. AP and LA declare no competing interests.

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Ischaemic stroke management at Al-Shifa Hospital in the Gaza Strip: a clinical audit

Amir Abukaresh, Rami Al-Abadlah, Bettina Böttcher, Khamis El-Essi

Abstract

Background In the 2014 Palestinian annual health report, cerebrovascular accident was ranked as the third leading cause of death in the occupied Palestinian territory. Cerebrovascular accident is also one of the most common causes of disability worldwide. Good management decreases mortality and morbidity. The aim of this study was to assess the current management of patients with ischaemic stroke at the Al-Shifa Hospital and to compare this with international guidelines.

Methods For this clinical audit, we used simple random sampling to select files of patients admitted with the diagnosis of ischaemic stroke to the Al-Shifa Hospital. Data collection sheets were completed, and clinical practice was compared with the 2013 American Stroke Association guidelines.

Findings Between January and June, 2016, 254 patients were admitted with ischaemic stroke, haemorrhagic stroke, or transient ischaemic attack. We selected 55 patient files. The International Classification of Diseases coding for cerebral infarction in patient files was relatively good, with 92% of files correctly coded. However, we found a substantial weakness in the documentation of duration, progression of symptoms (documented in 20% of files only), and physiotherapy assessment. Most essential acute investigations were done on time (for all [100%] patients needing blood count, renal function tests, and CT scan and for 42 [76%] patients needing ECG). However, thrombolytic drugs were not used because they were not available. Long-term antiplatelet therapy was provided properly to 51 (92%) patients discharged from hospital. However, the initial doses of antiplatelet therapy were generally lower than the international recommendations. Findings also showed a marked inconformity of blood pressure management, especially with respect to the treatment decision and the choice of antihypertensive drug.

Interpretation No local guidelines exist. Furthermore, the lack of availability of thrombolysis medication and the poor deviation in blood pressure management show a lack of evidence-based practice. These findings point to the urgent need for the development of local, evidence-based guidelines.

Funding None.

Contributors

AA and RA completed the data collection and interpretation. BB and KE completed data analysis and wrote the Abstract. All authors have seen and approved the final version of the Abstract for publication.

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We declare no competing interests.

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Access to water and morbidity in children in the occupied Palestinian territory, 2000–14: a repeated cross-sectional study

Hugo Legge, Amira Shaheen, Ghassan Shakhshir, Ai Milojevic

Abstract

Background Water insecurity is an important risk factor for disease. In recent years, Palestinians have seen access to drinking water increasingly restricted. The aim of this study was to describe such changes over time and examine the association between drinking water sources and the health of children younger than 5 years in the occupied Palestinian territory in 2000–14.

Methods For this repeated cross-sectional study we used data from five Demographic and Health Surveys conducted between 2000 and 2014. Change over time was quantified by comparison between the first (n=6155) and final survey (n=7893). For regression analysis, data were aggregated by year, locality (urban vs rural vs camp), and governorate area (n=218). Multiple regression models were applied to examine associations between access to improved drinking water sources (according to Joint Monitoring Programme definitions) and the prevalence of diarrhoea and stunting. Ethical approval was obtained from Al-Najah University and London School of Hygiene & Tropical Medicine.

Findings Children's access to an improved water source decreased from 98% in 2000 to 11% in 2014 in the Gaza Strip, whereas it remained stable in the West Bank (94% in 2000 to 94% in 2014). The prevalence of diarrhoea increased in both areas (7% in 2000 to 11% in 2014 in the Gaza Strip; 6% in 2000 to 11% in 2014 in the West Bank), whereas the prevalence of stunting decreased in both (12% in 2000 to 8% in 2014 in the Gaza Strip; 11% in 2000 to 8% in 2014 in the West Bank). Pooled analysis adjusted for socioeconomic status and survey year suggested that prevalence of diarrhoea decreased in areas by 6% (95% CI -12 to 0) for every 1% increase in the use of an improved water source in the Gaza Strip. This was not the case in the West Bank.

Interpretation Limited access to improved water sources was associated with higher prevalence of diarrhoea in the Gaza Strip between 2000 and 2014. Our results suggest policies to increase access to improved water sources should remain a priority in the Gaza Strip.

Funding None.

Contributors

HL and AM developed the study design. AS, GS, and HL secured data access. The data analysis was mainly done by HL. All authors were involved in drafting the Abstract. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

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Access to water and morbidity in children in the occupied Palestinian territory, 2000–14: a repeated cross-sectional study

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Funding None.

Contributors

HL and AM developed the study design. AS, GS, and HL secured data access. The data analysis was mainly done by HL. All authors were involved in drafting the Abstract. All authors have seen and approved the final version of the Abstract for publication.

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Knowledge and self-care practices in adolescent girls living in Nablus district during menstruation: a cross-sectional study

Eatimad Shalabi-Abbas, Saba Dweikat, Israa Al Gazawy, Sajeda Draghmah

Abstract

Background Menstruation is a natural phenomenon that occurs throughout the reproductive life of every woman. The aim of this study was to explore knowledge and self-care practices among Palestinian adolescent girls during their menstrual period. Reproductive health issues in adolescent girls is an important but neglected area of Palestinian research.

Methods For this cross-sectional study we recruited girls from grades seven, eight, and nine in the three biggest schools for girls in Nablus district. Participants were given a self-administered questionnaire that included questions about diet habits, daily activity, medication usage, and social norms related to the menstrual period. Data were analysed using SPSS version 17. The study protocol was approved ethically by Ibn Sina College for Health Sciences board. Verbal informed consent was obtained from the participants.

Findings 100 girls completed the questionnaire. 68 (68%) respondents referred to their mothers as the main source of information about dealing with menstrual periods. 52 (52%) respondents believed that salty food affects adversely on their health during the menstrual period, and 85 (85%) answered that showering is important during menstruation and that no harm comes from touching things during menstruation. 38 (38%) girls did not change food quality or quantity during menstruation, and 36 (36%) girls often take hot herbal drinks to relieve menstrual pain, whereas 63 (63%) girls reported use of analgesics. 94 (94%) respondents had a proper way of disposing of dirty pads. 45 (45%) girls said they used school toilets, 70 (70%) mentioned the availability of private doors, and 60 (60%) reported the availability of soap and water.

Interpretation Self-care practices during menstruation could be improved in adolescent Palestinian girls by establishing comprehensive puberty education programmes in schools and providing appropriate sanitation conditions in school toilets.

Funding None.

Contributors

ES-A supervised the study and wrote the Abstract with input from SD and IAG. SD and IAG did the data collection, data analysis, and interpretation. All authors have seen and approved the final version of the Abstract publication.

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Factors related to high dental caries experience in Palestinian pregnant women in the Jerusalem governorate: a cross-sectional study

Elham Kateeb, Elizabeth Momany

Abstract

Background Beliefs about oral health during pregnancy demographic factors, such as level of education and socioeconomic status, are associated with an increased risk of oral diseases during pregnancy. The aim of this study was to assess the oral health status of pregnant women and the relation to the women's oral health knowledge, beliefs, behaviour, and access to dental care.

Methods For this cross-sectional study, pregnant women visiting pre-natal care clinics at the Palestinian Ministry of Health centres in the Jerusalem governorate were invited to complete a structured interview with questions about beliefs about oral health care and their oral hygiene practices. Screening for oral health conditions was done using the Decayed, Missed and Filled Teeth (DMFT) index to assess the women's dental caries experience, and gingival health indices (plaque, gingival, and calculus) were measured to assess gingival health. Ethical approval was obtained from Al-Quds University Ethics Committee.

Findings 152 pregnant women agreed to participate in this study. Participants had a mean DMFT score of 15.5 (SD 4.5). Bivariate analysis showed that women who had completed a degree after high school had a lower DMFT score than women who did not ($F=4$; $p=0.024$). Women who had visited a dentist in the past 6 months had a higher DMFT score than women who had never visited a dentist ($F=2.4$, $p=0.05$). Additionally, women who believed they could lose a tooth just because they are pregnant scored high DMFT scores ($t=-4$; $p=0.037$). Results of the multivariable analysis showed that age, level of education, recent dental visit, and the belief that it is unsafe to get routine dental care during pregnancy explained 25% of the variation in the DMFT score.

Interpretation Women in this study had high prevalence of dental disease and knew little about dental care during pregnancy. Faulty beliefs about oral health care and barriers to dental care were major factors in the high prevalence of the disease.

Funding This project was partially funded by 2016 International Dental Federation FDI SMILE Award.

Contributors

EK helped in study design, data collection, data management, data analysis, data interpretation, and the writing of the Abstract. EM helped in study design and data interpretation. Both authors have seen and approved the final version of the Abstract publication.

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Awareness and factors influencing breast reconstruction in the Gaza Strip: a cross-sectional study

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Background Women are usually given two options after a mastectomy. They can either wear a prosthesis or have a breast reconstruction. Unfortunately, many women in the Gaza Strip are unaware of these options. The aim of this study was to shed light on the awareness and sociocultural factors in women who underwent mastectomy before choosing between options.

Methods In this cross-sectional study, we recruited patients who underwent mastectomy in the Gaza Strip. All participants completed a face-to-face questionnaire between Aug 1, 2015, and April 30, 2016. Verbal consent was obtained from all participants.

Findings 173 women with a mean age 51 years (SD 10) were enrolled in this study. 90 (52%) women had low income, and 36 (21%) women had a first-degree relative with breast cancer. 133 (77%) women underwent radical mastectomy, and 29 (17%) women had breast-conserving surgery. 96 (55%) women had tried a breast prosthesis to gain confidence, and 72 (42%) women were unaware of the availability of breast reconstruction in the Gaza Strip. 161 (93%) women expressed a strong desire to have breast reconstruction surgery, whereas 12 (7%) women expressed no interest. The preference for breast reconstruction surgery was justified as a way of regaining positive attitudes from others (135 [84%] women), improving romance and satisfying their husbands (116 [72%]), and regaining self-confidence (37 [23%]). Being unconcerned about the physical appearance was the most common explanation for refusing breast reconstruction surgery (47 [29%] women), whereas 18 (11%) women had a fear of getting unsatisfactory results.

Interpretation When opting for breast reconstruction surgery, patients appear to be affected by prior knowledge, societal attitudes, body appearance, and romantic relationships. The findings suggest that assessing women's desires, goals, and expectations could help improve service delivery after mastectomy. Efforts should be made to spread knowledge and awareness of breast reconstruction options for women having a mastectomy in the Gaza Strip.

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Contributors

EA contributed to study design, data collection sheet development, data collection, and the writing of the Abstract. MS contributed to study design, data collection sheet development, data collection, analysis, and interpretation. KE was the study supervisor and contributed to study design, data collection sheet development, and the revision of the Abstract. IA, HA, EK, HB, and AH contributed to data collection and input for data analysis. All authors have seen and approved the final version of the Abstract publication.

Declaration of interests

We declare no competing interests.

Medication adherence by Palestine refugees living in Jordan who have diabetes: a cross-sectional study

Giulia Canali, Victoria Tittle, Akihiro Seita

Abstract

Background The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) estimated that in 2016, 11% of Palestine refugees older than 40 years living in Jordan were diagnosed with diabetes and that the disease is controlled in only 45% of Palestine refugees with diabetes. As medication adherence is one of the most important modifiable self-care behaviours to achieve adequate metabolic control, the aims of this study were to measure medication adherence and to review the factors associated with different levels of medication adherence in patients with diabetes.

Methods This cross-sectional study was a survey of patients with type 1 and type 2 diabetes who attended medical care at the UNRWA Amman New Camp health centre in Jordan. Medication adherence was measured using the Morisky Medication Adherence Scale (MMAS-8), and results were used as outcome variable. Data on factors associated with adherence were collected using a pre-tested patient questionnaire and patients' electronic records, and these factors were used as explanatory variables. Logistic regression analysis of each explanatory variable against the outcome variable was done to estimate crude odds ratios. Data were analysed using STATA version 13.0.

Findings 763 patients were included in the study. 557 (73%) patients did not adhere to their diabetes drug therapy. Univariate analysis showed that the factors associated with non-adherence were: the use of multiple providers for diabetes care (crude odds ratio 0.51, 95% CI 0.28–0.91) and diabetes drugs (0.22, 0.09–0.56); satisfaction with the quality of UNRWA's diabetes care (4.51, 1.05–19.45) and with the explanation of the disease and treatment presented by UNRWA's health professionals (2.72, 1.24–5.29); and trust in UNRWA's health staff (3.61, 1.4–9.32).

Interpretation Decreased odds of adherence was associated with the use of multiple providers of care and diabetes medication, whereas increased odds of adherence correlated with full satisfaction with the quality of care, explanation of the disease, and treatment and trust in UNRWA health-care staff. These findings show the importance of health-system-related factors in affecting adherence to drug therapy in a population of Palestinian refugees with diabetes who accessed UNRWA health care in Jordan.

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Contributors

GC contributed to the study design, data collection, data management, data interpretation, and the writing of the Abstract. VT contributed to the data analysis, data interpretation, and the reviewing of the Abstract. AS contributed to the study review. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

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Quality of life, primary traumatisation, and positive and negative affects in primary school students in the Gaza Strip

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Abstract

Background Many researchers have reported that exposure to war and ongoing political violence increases mental health problems in children. Results of studies have also shown a high prevalence (58–80%) of post-traumatic stress disorder in war-affected children living in the occupied Palestinian territory. The aim of this study was to estimate the direct and indirect effects of perceived life satisfaction on the consequences of children's exposure to trauma and the balance of positive and negative affect.

Methods Palestinian children were recruited from primary schools in four refugee camps in the Gaza Strip (Bureij, Gaza Beach Camp, Jabalia, Rafah). All children had been involved in or witnessed one or more episodes of violence involving other people in the 2 months prior to the study (the 2012 Gaza War). We used the Multidimensional Students Life Satisfaction Scale (peers, self, living environment, school, family), the Positive and Negative Affect Scale for Children, and the revised Children Impact of Events scale (intrusion and avoidance symptoms) to test (through structural equation modelling) the moderation effect of life satisfaction on war trauma via positive emotions.

Findings 1276 Palestinian children were enrolled in this study. The model tested with structural equation modelling was robust. Children's life satisfaction influenced both the intrusion ($\beta=-0.48$; $p=0.003$) and avoidance ($\beta=-11$; $p=0.021$) effects of primary traumatisation. The consequences of primary traumatisation by intrusion ($\beta=0.34$; $p=0.008$) and avoidance ($\beta=0.27$; $p=0.011$) contributed to increasing negative affect. Finally, perceived life satisfaction had direct effects on affective experience, specifically increasing positive affect and diminishing negative affect.

Interpretation Perceived quality of life in children has a role in controlling war-related traumas. Life satisfaction contributes both directly and indirectly to change affectivity. When children perceive themselves to be highly satisfied with their home and school environment, living conditions, and relationships with peers and parents, the effects of trauma are less severe.

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Contributors

GV planned the research and wrote the Abstract. AP did the statistical analysis and wrote the Abstract. FA, AJ and HH collected data and wrote the abstract. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

GV has worked in the Gaza Strip as a trainer with Mercy Corps, USA, and as a teacher in the MA program in community mental health at the Gaza Community Mental Health Program. Since 2009, GV has contributed to the Remedial Education Centre in Gaza as a consultant, teacher, and project coordinator. FA, AJ, and HH are members of REC Gaza. AP declares no competing interests.

Severe extremity amputations in surviving Palestinian civilians caused by explosives fired from drones during the Gaza War

Hanne Heszelein-Lossius, Yahya Al-Borno, Samar Shaqoura, Nashwa Skaik, Lasse Melvær Gilil, Mads Gilbert

Abstract

Background During four separate Israeli military attacks on Gaza (2006, 2009, 2012, and 2014), about 4000 Palestinians were killed and more than 17 000 injured (412 killed and 1264 injured in 2006; 1383 killed and more than 5300 injured in 2009; 130 killed and 1399 injured in 2012; and 2251 killed and 11231 injured in 2014). An unknown number of people had traumatic amputations of one or more extremities. Use of unmanned Israeli drones for surveillance and armed attacks on Gaza was evident, but exact figures on numbers of drone strikes on Gaza are not available. The aim of this study was to explore the medical consequences of strikes on Gaza with different weapons, including drones.

Methods We studied a cohort of civilians in the Gaza Strip who had one of more traumatic limb amputation during the Israeli military attacks between 2006 and 2016. The study was done at The Artificial Limb and Polio Center (ALPC) in the Gaza Strip where most patients are treated and trained after amputation. We used standardised forms and validated instruments to record date and mechanism of injury, self-assessed health, socioeconomic status, anatomical location and length of amputation, comorbidity, and the results of a detailed clinical examination.

Findings The studied cohort consisted of 254 Palestinian civilians (234 [92%] men, 20 [8%] women, and 43 [17%] children aged 18 years and younger) with traumatic amputations caused by different weapons. 216 (85%) people had amputations proximal to wrist or ankle, 131 (52%) patients had more than one major amputation or an amputation above the knee, or both, and 136 (54%) people were injured in attacks with Israeli drones, including eight (40%) of the women. The most severe amputations were caused by drone attacks ($p=0.0001$). Extremity injuries after drone attacks led to immediate amputation more often than with other weapons ($p=0.014$). Patients injured during cease-fire periods were younger than patients injured during periods of declared Israeli military operations ($p=0.0001$).

Interpretation Weapons fired on the Gaza Strip from Israeli drones caused severe injuries in surviving Palestinian civilians. Drone-fired missiles resulted in major amputations in almost all victims who had limb losses. Substantially more severe injuries were inflicted by the drone-launched explosives than by other weapons used during the Gaza War. Traumatic amputations caused by drones were often immediately complete. One limitation of our study is that it does not elucidate injury patterns in victims with fatal injuries.

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Contributors

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Barriers preventing Palestinian women from having a mammogram: a qualitative study

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Abstract

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Background The mammogram is considered a life-saving breast cancer screening procedure for women aged 40 years and older, yet uptake of mammography services by Palestinian women is very low. Breast cancer is the most common cancer, comprising 17% of all reported cancer cases, and the second leading cause of death in women in the occupied Palestinian territory. The aim of this study was to understand the barriers to mammography uptake through an exploratory qualitative study in Ramallah and Salfit.

Methods The qualitative approach of the study consisted of 24 semi-structured, in-person interviews and seven focus-group discussions with women from different settings and backgrounds through a purposive sampling approach. The interviews and discussions focused on women's knowledge of mammograms, reasons behind their decision to use the service or not, and whether they encouraged the service. Interviews were recorded after informed consent was received. Interviews and focus-group discussions were then transcribed and analysed thematically.

Findings Women mentioned a variety of barriers, including their psychological, social, and religious beliefs as well as disease-related, health system-related, political, and financial factors. Women expressed psychosocial issues such as shyness, fear from being diagnosed, losing femininity, losing financial and emotional support, losing independence and control of their lives, suffering pain besides low self-prioritising, being busy with children and house keeping, and having low knowledge of mammography. Only one woman expressed political concerns about access to screening services. Interviewees raised cultural factors, and lack of health insurance was a primary barrier to mammography for uninsured, widowed, and divorced women. More women had financial concerns with the treatment process and access if they were found to have cancer. Others had concerns about test efficacy, safety, and importance. Participants also raised issues related to social stigma: many women had concerns about family norms and values with respect to a possible second marriage of their husband if they were diagnosed with cancer as well as the potential negative effect of a cancer diagnosis on their daughters' marriage prospects.

Interpretation Health-seeking behaviours by women are controversial and affect their decision to participate in mammography for screening or diagnoses. Given the sensitivity of the topic and the importance of early detection, health policies need to take those behaviours and barriers into account.

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Contributors

Both authors contributed to study design, data analysis, data interpretation, tables, figures, the writing and revision of the Abstract, input for data analysis, data collection, and data management. Both authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

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The effect of smoking on the healthy life expectancy of Palestinian men in the West Bank: a cross-sectional study

Henrik Brønnum-Hansen, Marie Jonassen, Amira Shaheen, Mohammed Duraidi, Khaled Qalalwa, Bernard Jeune

Abstract

Background The high prevalence of smoking (40%) in men living in the West Bank of the occupied Palestinian territory is a major challenge for the Palestinian health authorities. The aim of this study was to estimate life expectancy and the average lifetime with and without chronic disease in men living in the West Bank who had never smoked, were ex-smokers, or were smokers.

Methods We used a life table for the male population in the West Bank and Danish relative risk estimates for death for smokers and ex-smokers versus never smokers and data from the 2010 Palestinian Family Survey. We estimated expected life time with and without chronic disease, and the contributions from the mortality and morbidity effects to smoking-related differences in average lifetime with and without chronic disease were assessed by decomposition.

Findings The life expectancy of a Palestinian man aged 15 years who would never start smoking was 59·5 years, of which 41·1 years (95% CI 40·3–41·9) were expected to be without chronic disease. Ex-smokers could expect 57·9 years of remaining life time, 37·7 years (35·9–39·4) of which would be without chronic disease. For life-long heavy smokers, the expected lifetime was 52·6 years, of which 38·5 years (37·3–39·7) would be without chronic disease. Of the total loss of 6·9 years of life expectancy in heavy smokers, the mortality effect accounted for 2·5 years without disease and 4·4 years with disease, whereas the morbidity effect was negligible. The morbidity component of the decomposition accounted for 1·7 years with disease for moderate smokers and 2·9 years without disease for ex-smokers.

Interpretation The high prevalence of smoking causes a considerable loss of life-years and life time without chronic disease. We recommend that the Palestinian health authorities enforce an anti-smoking law.

Funding None.

Contributors

HB-H contributed to the idea, study design, data analysis, and the writing of the Abstract. MJ contributed to data extraction from the survey. AS contributed to data interpretation. MD contributed to data collection and life table construction. KQ contributed to data collection. BJ contributed to the revision of the Abstract and data interpretation. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

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Effects of structured group psychosocial support sessions on psychosocial wellbeing of children and their caregivers: a descriptive study

Jasem Humeid

Abstract

Background Children aged 7–12 years and their caregivers participated in a series of group psychosocial support sessions, using standard manuals specifically developed for facilitating such sessions such as Children Affected by Armed Conflict and Joint Sessions. The sessions used various activities, including drawing, storytelling, folk games, and other activities, to provide participants with opportunities to express their feelings, learn and practice new coping skills, and interact with others. The aim of this study was to measure the effects of structured psychosocial support sessions on the psychosocial wellbeing of children and their caregivers in the Gaza Strip.

Methods This descriptive study involved children and female caregivers selected from six locations using a stratified sampling technique. External enumerators collected data before and after the group sessions. Two interview questionnaires with questions about psychological and social status were used, one for children and one for caregivers. The caregivers' questionnaire also assessed their psychosocial knowledge. Adult participants and caregivers of participating children provided verbal consent. Data were analysed with SPSS, and a p value less than 0·05 indicated significance.

Findings 155 children (77 [50%] boys and 78 [50%] girls) and 155 female caregivers were enrolled from a population of 1720 children (50% boys and 50% girls) and 1720 female caregivers. The sessions improved psychosocial wellbeing in participants, with the average psychosocial wellbeing score increasing from 58% to 87% in children and from 69% to 84% in caregivers. Caregivers' knowledge increased from 70% to 82%. Improvement was found in the various aspects of psychosocial wellbeing. No differences were found with respect to location, sex, and age.

Interpretation Structured group sessions improved psychosocial wellbeing in children and caregivers and improved caregivers' knowledge. Given the design of this study, it is difficult to fully attribute these results to the intervention.

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Declaration of interests

I declare no competing interests.

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Factors associated with depression in patients with type 2 diabetes in the Gaza Strip: a cross sectional study

Khaled Abu Saman, Salwa Massad, Ali Abu Ibaid, Huda Anan, Mamhoud Daher, Rand Salman, Saleh Aldeqes

Abstract

Background About 9% of the world's population has diabetes. Most people with diabetes live in developing countries. Diabetes is the fourth leading cause of death in the occupied Palestinian territory. The likelihood of diabetes complications increases with depression. Worldwide, about half of patients with diabetes have severe depression that has been misidentified by health providers. The aim of this study was to examine factors associated with depression in patients with type 2 diabetes in the Gaza governorate.

Methods This cross-sectional study included patients attending three primary health centres in 2016. A convenient purposive approach to sampling was used to select three centres from the 15 centres in the Gaza governorate, covering the east (border), middle, and west areas. Since 2014, all patients with type 2 diabetes have been screened for depression using the Patient Health Questionnaire 9. Data on demographic, socioeconomic, and health status and on patients' beliefs were collected during interviews with structured questionnaires, and medical data were collected from patient records. χ^2 tests and logistic regression were used to test associations between dependent and independent variables.

Findings 380 patients were included in the study. 255 participants were women with type 2 diabetes and older than 40 years. The median age of participants was 59 years (IQR 13). 285 (75%) participants were married, and 221 (58%) had not completed high school. 103 (27%) participants screened positive for depression. Factors positively associated with depression were age (people younger than 50 years were at greater risk than people aged 50 years and older [odds ratio 2.25, 95% CI 1.2–4.2]), being single (2.04, 1.68–3.55), not believing that they can manage the disease (2.9, 1.6–5.6), and living in border areas (3.6, 2.0–6.2).

Interpretation More attention should be given to young, single patients and to those living in border areas. Treatment options and care for patients with depression should be strengthened with counselling and medications.

Funding Palestinian National Institute of Public Health.

Contributors

KAS did the analysis and data collection with support from SA. SM devised the study idea and reviewed the findings. AAI wrote the Abstract with support from KAS. HA, MD, and RS reviewed the study findings. All authors have seen and approved the final version of Abstract for publication.

Declaration of interests

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Morphine versus fentanyl for spinal post-caesarean analgesia: a randomised controlled trial

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Abstract

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Background Finding appropriate analgesics is important for a mother's recovery after a caesarean section. The aim of this study was to compare the analgesic effect of spinal morphine and fentanyl for women undergoing a caesarean section.

Methods In this randomised, unmasked, parallel-group, controlled trial, eligible participants were women undergoing caesarean section with spinal anaesthetic at the Al-Helal Al-Emirati Hospital, Rafah, Gaza Strip, occupied Palestinian territory. Using a manually generated allocation sequence that was independently managed by medical staff, we randomly assigned women (1:1) to receive either 0.2 mg preservative-free morphine or 20 µg fentanyl, spinally, combined with 2 mL of 0.5% hyperbaric bupivacaine for spinal anaesthesia. Pain was recorded by visual analogue scales (VAS; range 0–10, where 0 means no pain and 10 means pain is intolerable) at 1 h, 6 h, 12 h, 18 h, and 24 h after the caesarean section. Time and amount of other analgesics needed were recorded (primary outcome). Secondary outcomes were nausea-vomiting scores (NVS 0–3, where 0 means no nausea or vomiting and 3 means severe nausea or vomiting that is unresponsive to antiemetics), and pruritus scores (PS 0–2, where 0 means no pruritus and 2 means severe pruritus). Data were analysed with SPSS. We compared outcomes using Mann-Whitney U-test, student's t-test, OR, or χ^2 test. The study was approved by the ministry of health and the Helsinki Committee, Gaza Strip. Women provided verbal informed consent before participation.

Findings We enrolled 121 women (mean age 28.43 years [SD 5.62]). 59 women were randomly assigned to the morphine group, and 62 women were randomly assigned to the fentanyl group. Pain was reduced with morphine compared with fentanyl at 1 h (VAS score: 1.81 for morphine vs 2.57 for fentanyl; $p < 0.039$), at 6 h (1.84 vs 5.08; $p < 0.0001$), at 12 h (1.45 vs 3.30; $p < 0.0001$), at 18 h (1.62 vs 3.18; $p < 0.0001$), and at 24 h (1.61 vs 2.68; $p = 0.0001$). The time to needing other analgesic drug was longer in the morphine group than in the fentanyl group (9.03 h vs 2.46 h; $p < 0.0001$). 20 (34%) women in the morphine group did not need analgesics, whereas all (100%) women with fentanyl needed additional analgesics (odds ratio [OR] 2.59, 95% CI 2.03–3.31). Mild nausea and drowsiness were seen more in the morphine group than in the fentanyl group at 6 h and 12 h, respectively ($p = 0.010$). Nine (15%) women in the morphine group had pruritus and needed treatment compared with one (2%) woman in the fentanyl group (OR 10.98, 95% CI 1.35–89.62).

Interpretation Spinal morphine was more effective than spinal fentanyl for caesarean analgesia. Morphine was associated with more side-effects than fentanyl, but these were treatable and did not pose any danger to women.

Funding None.

Contributors

KAEA contributed to the conceptualisation of the study, study design, data collection, statistical analysis, the writing and revision of the Abstract, input for data analysis, and data management. RT contributed to the study procedure, study design, data collection, and the revision of the Abstract. HZ contributed to the study procedure, study design, and the revision of the Abstract. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

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The overestimation and the inappropriate promotion of the benefits of mammographic screening in breast cancer research and interventions in the Gaza Strip

Klim McPherson, Shaymaa AlWaheidi

Abstract

Background There has been extensive debate about whether mammographic screening has done more good than harm. Recent reviews showed that women who undergo mammographic screening are more likely to have a tumour that was an overdiagnosis and therefore would not cause them problems. In the Gaza Strip, a strong forum of people advocate an increase in mammographic screening, and the aim of this study was to establish the evidence for this view.

Methods Research papers that have focused on breast screening in the Gaza Strip or elsewhere in the occupied Palestinian territory were reviewed. Published educational material, including brochures, booklets, and short videos on mammographic screening, were also reviewed. A thematic analysis was done to document the opinions of authors on the effect of mammography.

Findings 11 studies and 20 sets of educational material were identified. Results of six cross-sectional studies showed that about 70% of Palestinian women had never had a mammogram, whereas data from one study showed that 90% of women in the Gaza Strip were willing to undergo diagnostic mammography, but around 30% of them were willing to undergo mammographic screening. Some investigators argued that mammographic screening programmes would improve survival by more than 20% in the Gaza Strip. The authors of two retrospective cohort studies concluded that Palestinian women have low survival rates because of the poor availability of mammography. Only three study groups mentioned harmful effects of mammographic screening. All educational materials had clear information on the benefits of mammographic screening but minimal information on its harms.

Interpretation Research in the Gaza Strip overestimated the reduction in breast cancer mortality that can be attributable to mammographic screening, and this would encourage women to undergo screening without knowing that it could harm them. The content of breast cancer educational material was misleading. This study shows that the information and advice given to women in the Gaza Strip is one-sided.

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Contributors

KM did the data interpretation. SA wrote the Abstract with input from KM. Both authors have seen and approved the final version of the Abstract for publication.

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We declare no competing interests.

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University students' knowledge of corneal donation and willingness to donate corneas in the occupied Palestinian territory: a cross-sectional study

Liana Al-Labadi, Yazan Gammoh, Reham Shehada, Reem Shahin, Walaa Jbarah, Madleen Amro, Hanan Athamny

Abstract

Background Access to corneal transplantation is limited worldwide because of poor knowledge. Ethical, religious, and cultural barriers contribute to low rates of corneal donation. In the occupied Palestinian territory, limited information is available on factors affecting corneal donation. The aim of this study was to assess the knowledge and willingness towards corneal donation in Palestinian students.

Methods This cross-sectional study included university students selected through convenience sampling in Nablus in the summer of 2016. The sample size was determined using the sample formulae and a 15% non-response rate. All students registered in obligatory courses were included in the study after verbal consent. Each participant was given a self-administered questionnaire consisting of 14 questions to assess knowledge, awareness, and willingness toward corneal donation. Frequencies were used for descriptive analysis, and associations were determined using multivariate analysis and χ^2 test, with a p value of less than 0.05 considered significant.

Findings Of the 634 students completing the questionnaire, 411 (65%) were women, 614 (97%) were Muslims, and 155 (25%) were health or medical students. 592 (93%) respondents were unaware of eye bank availability, and 407 (69%; $p=0.002$) of these respondents did not show willingness towards corneal donation. 431 (67%) respondents were aware of a lack in corneal donation, but 274 (64%; $p=0.01$) of these respondents did not show willingness towards corneal donation. 429 (68%) respondents were not willing to donate their corneas, the most common reasons being disapproval by family members and poor awareness. We found no association between sociodemographic factors and willingness was determined.

Interpretation Palestinian students are aware of the lack of local cornea donation but are unwilling to donate their corneas. The study results are not representative of the entire population because of the homogeneous nature of the sample. Large efforts are needed locally to develop the eye bank infrastructure to increase knowledge and awareness relating to corneal donation.

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Contributors

LA contributed to the data analysis, data interpretation, tables, figures, and the writing of the Abstract. RSha contributed to the data analysis, data interpretation, tables, figures, and the writing of the Abstract. YG contributed to the writing of the Abstract. RShe contributed to the Study design and input for data analysis. WJ contributed to data collection, data management, data analysis, and the revision of the Abstract. MA and HA contributed to data collection, data management, and the revision of the Abstract. All authors have seen and approved the final version of the Abstract for publication.

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The relation between health research output and burden of disease in Palestine: a systematic review

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Abstract

Background Highest priority should be given to research on conditions responsible for the greatest disease burden. This is particularly important in settings where resources are scarce. The aim of this study was to assess the association between research output and disease burden in the occupied Palestinian territory and to identify the conditions that are under-investigated or over-investigated, if any.

Methods We searched PubMed and Scopus for reports of original research relevant to human health or health care that was authored by researchers affiliated with Palestinian institutions and published between Jan 1, 2000, and Dec 31, 2015. We categorised the health condition studied in included articles using the Global Burden of Disease (GBD) taxonomy. Data about the burden of disease (percentage of deaths and disability-adjusted life-years [DALYs]) were obtained from the Palestine profile in the GBD study. We examined the degree of discordance between the observed number of published articles for each disease or health condition with the expected number based on the proportion of disease burden for that disease or health condition.

Findings We identified 2469 records and excluded 1650 records after screening titles and abstracts. We included 511 of the remaining 819 full-text articles in our review. Research output was poorly associated with disease burden, irrespective of whether measured in DALYs ($\rho: -0.116$; $p=0.7$) or death (0.217 ; $p=0.5$). Cardiovascular disease, maternal and neonatal health, and cancer accounted for 212 (67%) deaths per 100 000 population in the occupied Palestinian territory, but this was addressed in only 117 (23%) articles.

Interpretation We found evidence of research waste, as measured by a mismatch between the health burden of disease or health condition and the number of published research reports about that disease or condition in Palestine. National research priority setting should be developed to meet the local community's need of quality evidence in order to develop independent and informed health policies.

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Contributors

LA, KE, and NA-R conceived and designed the study. LA searched the literature from electronic databases. LA did the statistical analysis and wrote the first draft of the Abstract. All authors provided critical comments and contributed to the interpretation of analysed results. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

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Publication patterns on occupied Palestine in four key medical journals 1990–2016: a descriptive study

Mads Gilbert

Abstract

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Background The atrocities in Syria have been covered in the four general medical weekly journals in the USA and the UK. Medical journal articles addressing political determinants of public health have rightly described and criticised the international community's failure to enforce humanitarian law while urging global bodies of power to ensure protection of civilians and civilian infrastructure and medical services. Discussions of the political influences on health of people in the occupied Palestinian territory (West Bank and Gaza Strip) seem to be considered politically out-of-bounds by some medical journals. This study used a keyword-based search to explore patterns of publication about the occupied Palestinian territory and Israel by four large US and European medical journals.

Method The four highest ranked, peer-reviewed, international medical journals were searched: *The Journal of the American Medical Association (JAMA)*, *The New England Journal of Medicine (NEJM)*, *The Lancet*, and *The British Medical Journal (BMJ)*. Searches were conducted between Sept 1 and Sept 6, using each journal's search engine with the keywords "Gaza", "West Bank" and the stems "Palestin*" and "Israel*" in all fields for the period Jan 1, 1990, to Sept 6, 2016. News and commentary articles were included in the findings.

Findings The searches found the term "Palestin*" in 49 articles from the two US journals (32 in *JAMA*; 17 in *NEJM*) and 694 articles in the two UK journals (236 in *The Lancet*; 458 in *BMJ*). "Israel*" was found in 840 articles in US journals (386 in *JAMA*; 454 in *NEJM*) and in 2972 articles in UK journals (1388 in *The Lancet*; 1584 in *BMJ*). "West Bank" was found in nine articles in US journals (nine in *JAMA*; none in *NEJM*) and in 297 articles from the UK (211 in *The Lancet*; 86 in *BMJ*). "Gaza" was found in 18 articles in US journals (15 from *JAMA*; three from *NEJM*) and in 487 articles in UK journals (324 in *The Lancet*; 166 in *BMJ*).

Interpretation Compared with the two US-based medical journals, the UK journals published substantially more articles with the relevant keywords and discussed political responsibilities for the dire health conditions experienced by the Palestinian people. The journals included in this study differed in the extent to which they featured news and comments, which might have affected the number of published articles. Because there is a larger research establishment in Israel than in the West Bank and the Gaza Strip, the keyword "Israel" might have been included in a larger number of clinical and biomedical scientific papers. Medical leaders, including journal editors, have a responsibility to participate in the discussion around this preventable situation, which could have long-lasting public health consequences.

Funding None.

Declaration of interests

I declare no competing interests.

Changes in out-of-pocket payments and health-seeking behaviours in the Gaza Strip

Majdi Ashour

Abstract

Background People living in the Gaza Strip have experienced a protracted political conflict and extreme socioeconomic adversity since 1948. Economic conditions have deteriorated markedly since the onset of the Palestinian Intifada in 1987 and have been exacerbated by the economic siege after 2006. The health system in the Gaza Strip has faced additional challenges. The aim of this study was to assess how Palestinian households in the Gaza Strip experienced health care services during this period of political turmoil, socioeconomic adversity, and challenges to health services.

Methods Mixed methods research (MMR) was used. The quantitative part of the MMR involved the analysis of data from ten rounds of the Palestinian Expenditure and Consumption Survey from 1996 to 2011. This survey enabled the components of out-of-pocket health expenditures and their catastrophic and impoverishing effects across the years to be measured and traced in different groups of households. The occurrence of catastrophic out-of-pocket spending was calculated at thresholds of spending 10% or more of the households' resources and 40% of their capacity to pay (non-food expenditure) for health care. The qualitative component of MMR consisted of life histories reported via semi-structured in-depth interviews with heads of households aged 46 years or older to capture changes over time in their experience with health services. The interviews were analysed using thematic narrative analysis and timeline analysis. The results of the Palestinian Expenditure and Consumption Survey and the interviews were triangulated.

Findings The occurrence of catastrophic out-of-pocket spending was stable, with no changes between 1996 and 2011. However, vulnerable groups tended to become less exposed to catastrophic out-of-pocket spending, especially after the major deterioration of the economic situation in the Gaza Strip after 2006. The ability to pay for health care, the nature of health conditions of the households, and the accessibility and entitlement to certain health services determined their choice of health providers and influenced their health-seeking behaviours. Additionally, households had used a wide range of coping mechanisms, including self-medications, decreasing the use of private health services, and relying on social capital. Interview respondents noticed the expansion of both public and private health services, but expressed their dissatisfaction with public services. The low financial cost of using public services is coupled with other costs such as increased waiting times, perceptions of indignity, and perceived low quality of services.

Interpretations The findings are interpreted within the political history of the Gaza Strip and its health-care system during the last three decades. The reduced occurrence of health-care-related financial catastrophe and impoverishment in the more vulnerable groups in the Gaza Strip could point to an emerging paradox of resilience and high level of household and health-system adaptation, which should be investigated carefully.

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Contraceptive use by Palestine refugee mothers of young children attending UNRWA clinics: a cross-sectional follow-up study

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Abstract

Background UNRWA introduced family planning services in 1994 as an integral part of its expanded maternal and child health-care programme. The main objective of UNRWA's family planning programme is to promote the health of mothers, children, and their families. The aim of this follow-up study was to assess contraceptive practices in the target population 5 years after the 2010 follow-up study and to identify future programme needs.

Methods This cross-sectional survey was done by trained nurses from June 1 to Dec 31, 2015. Participants were Palestinian refugee mothers who attended Well Baby Clinics at all UNRWA health centres with their youngest child (aged 2 months to 5 years). A sample size of 10 478 participants was calculated on the basis of contraceptive use in 2010, using Epi Info sample size calculation. Women were interviewed, and retrospective data from health records were used as supplementary data. We did a multiple logistic regression to test if maternal age and parity predicted contraceptive use. We used the χ^2 test to analyse the relation between previous contraceptive use and birth interval, birth weight, and gestational age. All participants provided verbal informed consent. The study was approved by the ethical committee in the UNRWA Health Department.

Findings Data were obtained from 9860 mothers (mean age 29.8 years [range 29.4–30.1]). 5849 (59%) women were using modern contraceptives at the time of the survey, 1745 (18%) were using traditional methods, and 2265 (23%) were not using any contraceptive method. The most common modern contraceptive was an intrauterine device (2186 [37%] women), and UNRWA was the main provider for 4827 (83%) women using modern contraceptives. The most common reasons for not using contraceptives were a wish to have a child (873 [22%] women), pregnancy (747 [19%]), and a husband's opposition (775 [20%]). Using women with less than three pregnancies as the reference category, use of contraceptives was most likely in women with three to six pregnancies (adjusted odds ratio 1.58, 95% 1.43–1.73; $p < 0.0001$) and in women with more than six pregnancies (1.6, 1.28–1.99; $p < 0.0001$). Women with at least one male child were more likely to use contraceptives than women with no male child (1.39, 1.24–1.56; $p < 0.0001$). Maternal age over 35 years was not a significant predictor for modern contraceptive use. We found a statistically significant correlation between previous contraceptive use and birthweight ($c^2 = 23.88$; $p < 0.0001$) but not with gestational age.

Interpretation It is encouraging that mothers seeking modern contraceptives rely on UNRWA to provide family planning services. We found that mothers with higher parity are more likely to use modern contraceptives that comply with UNRWA recommendations. As expected, modern contraceptives lead to better birth spacing. However, mothers above 35 years of age are not more likely to use modern contraceptives, and these mothers might be at higher risk for negative maternal and infant health outcomes. UNRWA family planning services could focus more on counselling this group of mothers.

Funding None.

Contributors

MH contributed to the development of the study design and wrote the Abstract. WZ contributed to data analysis. MAE-K, AAT, EH, HA, and NK contributed to data collection. AK contributed to the study design. AS contributed to the revision of the Abstract. All authors have seen and approved the final version of the Abstract for publication.

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Integrating a public health and human rights approach into mental health services for Palestinians in the Gaza Strip

Marwan Diab, Yasser Abu Jamei, Ashraf Kagee, Guido Veronese

Abstract

Background In the context of violations of human rights and insecurity, the Gaza Community Mental Health Programme (GCMHP) provides mental health services and psychosocial interventions that match local cultural and social norms. The GCMHP uses a community mental health approach to promote the psychological wellbeing of the people living in the Gaza Strip and advocate on mental health issues.

Methods The GCMHP provides preventive and therapeutic care to a broad public health spectrum of Gazan society. Services are provided in terms of preventative public health at the primary, secondary, and tertiary levels. Data reported here are from 2014–16.

Findings For primary prevention, our services include advocacy, public awareness, and media campaigns aimed at raising awareness about and preventing common mental disorders and behavioural difficulties in children. 35 878 people are estimated to have benefited from these programmes. The GCMHP also provides psychological first aid and crisis intervention to vulnerable persons and a free telephone counselling service. About 12 943 persons have received individual sessions, and 2590 persons have received telephone counselling. The GCMHP also provides training to enhance the skills of professionals of local organisations working in mental health and psychosocial services. 3557 people have attended these programmes. As secondary prevention, the GCMHP offers individual and group psychotherapy, and routine home visits are provided for torture survivors and individuals and families exposed to cumulative trauma. 11 713 individuals have received such services. As tertiary prevention, rehabilitation services including physiotherapy and occupational therapy are provided to help patients regain their role as active members of the community. 398 people have received these services.

Interpretation A public health-oriented approach to mental health services fits the socioecological model that locates individuals and families within the context of their community, religious-cultural context, and social, economic, and political systems. With social responsibility embedded as a core value, the GCMHP seeks to restore psychological wellbeing in citizens of the Gaza Strip.

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Contributors

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Management of acute ischaemic stroke at Nasser Hospital, Gaza Strip: a clinical audit

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Abstract

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Background Stroke is a leading cause of morbidity and mortality worldwide. The aim of this study was to assess the standard of care for patients with acute ischaemic stroke at the internal medicine department of Nasser Hospital, Gaza Strip.

Methods For this retrospective clinical audit, we selected a random sample of 100 medical records for patients with stroke who were admitted to Nasser Hospital between January and August, 2016. Clinical practice was compared with the recommendations in the 2013 American Heart Association and American Stroke Association guidelines. Patient confidentiality was maintained, and ethical approval was obtained from the Palestinian Ministry of Health.

Findings Five patient records were not coded and therefore excluded. Of the remaining 95 patients, 51 (54%) were men with a mean age of 67 years (SD 14). 53 patients presented with dysarthria. The duration of stroke symptoms before admission was not reported in 86 (91%) records. A complete blood count and renal function tests were done for all patients, lipid profiling for 87 (92%) patients, electrocardiography for 85 (89%) patients, carotid duplex ultrasound for 32 (34%) patients, and CT scan for all patients. None of the patients had continuous cardiac monitoring or an assessment of swallowing function, and 70 (74%) patients received immediate anti-platelet therapy (325 mg aspirin). 80 (85%) patients received venous thromboembolism prophylaxis. 41 (43%) patients were given antibiotics without a recorded indication. None of the patients received thrombolytic therapy. As recommended in the guidelines, 41 (43%) patients did not receive anti-hypertensive agents on the first day of hospitalisation. 46 (48%) patients had diabetes, and glycaemic control was achieved by day 3 in 26 (57%) patients.

Interpretation No Palestinian guidelines exist for the management of patients with acute ischaemic stroke, and in most cases management was based on personal experience rather than evidence. The development of evidence-based guidelines is mandatory to improve management of ischaemic stroke. Furthermore, implementing staff education activities, regular clinical audit, and team feedback would encourage adherence to such guidelines. Combined with the establishment of a specialised stroke unit and development of a multidisciplinary team approach, patient outcome could be improved further.

Funding None.

Contributors

MNA, AE, and BB conceived and designed the study. MNA, TA-A collected and interpreted the data. MA analysed the data. MNA wrote the Abstract. LA critically revised the Abstract. LA, BB, MNA approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

Acute poisoning in the Gaza Strip: a retrospective study

Mohammed K El-Habil

Abstract

Background Acute poisoning is a major public health problem worldwide and a common cause of patient admissions to emergency departments and intensive care units. The aim of this study was to assess the acute poisoning cases admitted to three hospitals in the Gaza Strip and to assess the need for a poison control and drug information centre in the Gaza Strip.

Methods All patients diagnosed with acute poisoning between 2010 and 2015 at the emergency departments of Al-Shifa Hospital, European Gaza Hospital, and Al-Nassr Paediatric Hospital in the Gaza Strip were included in this retrospective study. The cases were analysed by age, sex, admission time, and type of poison. Medical practitioners from the same hospitals were interviewed by telephone using structured questionnaires to assess the need for a poison control and drug information centre in the Gaza Strip.

Findings 3362 patients with acute poisoning were included in this study. 2622 (78%) cases were reported in Al-Shifa Hospital. Between 2010 and 2015, the number of patients with acute poisoning increased by 51%. The most common poisons were drugs (45%) and organophosphorus (32%). 214 practitioners completed the questionnaire (114 doctors, 54 pharmacists, and 46 nurses). 205 (96%) practitioners insisted on the need for a poison control and drug information centre in the Gaza Strip ($p < 0.0001$). 185 (90%) practitioners encouraged the availability of such facility 24 h per day. Doctors were more keen to access the centre than other practitioners ($p < 0.0001$).

Interpretation The number of cases of acute poisoning has increased in the Gaza strip since 2010. Most health-care professionals, especially doctors, highlight the need for a poison control and drug information centre in the Gaza Strip to provide immediate poisoning consultation and treatment advice.

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The effectiveness of counselling interventions in reducing HbA_{1c} concentrations in patients with type 2 diabetes: a modelling study

Mohammed B Sarhan, Rula Ghandour, Niveen M E Abu Rmeileh

Abstract

Background The burden of type 2 diabetes is increasing rapidly in the occupied Palestinian territory. Different counselling interventions have been applied worldwide to reduce HbA_{1c} concentrations in patients with type 2 diabetes. Achieving good glycaemic control is important for prevention of complications of type 2 diabetes. The aim of this modelling study was to assess the effectiveness of different counselling interventions in improving glycaemic control in patients with type 2 diabetes.

Methods The scientific literature was reviewed to identify relevant interventions that can reduce HbA_{1c} concentrations in patients with type 2 diabetes. We included articles describing interventions tested at the primary health-care level and targeting patients with type 2 diabetes. Based on WHO's "Best Buys", and taking into consideration their feasibility, acceptability, and potential effectiveness, we identified different forms of counselling interventions at the primary health-care level. The effect of each identified intervention on HbA_{1c} concentrations and the duration of this effect were collected in predefined tables. A regression line was plotted to find an estimate of the effect of each intervention through calculating the correlation between the changes in HbA_{1c} from each intervention versus the duration of the intervention. The unstandardised β -coefficient was identified for each intervention to predict its effectiveness in reducing HbA_{1c} concentrations.

Findings We identified three main effective counselling interventions at the primary health-care level: (1) individual counselling intervention by multidisciplinary teams of health-care professionals, which provided individual counselling sessions depending on the patients' glycaemic control status; (2) the community health-worker intervention, which provided a set of home counselling visits for patients with uncontrolled type 2 diabetes; and (3) short message service (SMS)-based intervention (sending patients a number of counselling SMS weekly). All interventions were effective in reducing mean HbA_{1c} concentrations in patients with type 2 diabetes. The SMS-based intervention was the most effective ($\beta=0.65$, $R^2=0.10$), followed by the community health-worker intervention ($\beta 0.27$, $R^2=0.28$) and the individual counselling intervention ($\beta=0.14$, $R^2=0.01$).

Interpretation We compared the effectiveness of a set of interventions that are considered relatively low cost and applicable at the level of primary health care (the "Best Buys"). Implementing at least one of these effective interventions within the Palestinian health-care system could help improve glycaemic control and eventually reduce the prevalence of complications associated with type 2 diabetes. Controlling HbA_{1c} concentration will not only reduce the epidemiological burden of type 2 diabetes and its complications but it will also reduce the economic burden within the Palestinian health-care system.

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Contributors

MBS wrote the Abstract with input and comments from RG and NMEAR. MBS and RG did the statistical analysis under the supervision of NMEAR. All authors have seen and approved the final version of the Abstract for publication.

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The radiological evaluation process of the potential live kidney donor assessment programme at al-Shifa Hospital: study and clinical audit

Musallam Abukhalil, Osama Mehjez, Mohammed Aladdam, Bettina Bottcher, Sobhi Skaik, Mohammed Matter

Abstract

Background In 2013, al-Shifa Hospital, the largest hospital in the Gaza Strip, introduced an assessment programme for potential kidney donors on the basis of medical and radiological evaluation. The aims of this study and an associated clinical audit were to examine the final outcome of the potential live kidney donors assessment programme, to review the findings and determine the level of accuracy of the radiological evaluations, to assess the completeness and standard of radiological record keeping, and to evaluate adherence to guidelines.

Methods Donor assessment files were retrieved from the kidney transplant database in the renal department of al-Shifa Hospital. Patients who had surgery outside the Gaza Strip were excluded. Delivery of the assessment programme was assessed according to British Transplantation Society guidelines. Radiological investigations were reviewed. The head of the radiological department was interviewed to provide additional information about the approach to assessing donors and current challenges.

Findings We retrieved files for 35 potential live kidney donors (mean age 36·82 years [range 23–54]). 32 (91%) donors had a nephrectomy, 33 (94%) donors were directed donors, and the type of donor donation was unknown for two (6%) donors. 24 (69%) donors were women, and 11 (31%) were men. 24 (69%) donors had CT angiography imaging reports as part of their pre-surgical evaluation. Digital access to those reports was limited and inefficient. Radiological assessments of renal parenchymal and renal anatomy and variants were made in 96% of cases. Of the 24 donors whose CT angiography imaging reports were retrieved, the excretory system was assessed in 16 (67%) donors, the presence of nephrolithiasis was assessed in 12 (50%) donors, and parenchymal disease was found in one (4%) donor.

Interpretation The potential live kidney donors assessment programme requires improvement to achieve an organised, consistent, and comprehensive radiological approach to assist clinical decisions, research, and quality assurance. We recommend using the latest radiology management system for an efficient workflow that can provide economical storage and convenient and timely access to images, interpretation, and digital transmission (eg, the Picture Archiving and Communication system).

Funding None.

Contributors

MA contributed to study design, data analysis, data interpretation, and the writing of the Abstract. OM contributed to data collection, data management, and input for data analysis. MA contributed to data collection and data management. BB, SS, and MM contributed to data interpretation and the revision of the Abstract. All authors have seen and approved the final version of the Abstract for publication.

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Helicobacter pylori resistance to antibiotics at the An-Najah National University Hospital: a cross-sectional study

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Abstract

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Background Bacterial resistance to antibiotics is considered the most important determinant of treatment failure. Monitoring the evolution of antimicrobial resistance to common antibiotics is therefore of special importance for clinicians. The frequency of resistance to antibiotics in *Helicobacter pylori* isolates is increasing. The aim of this study was to determine the pattern of *H pylori* antibiotic resistance at the An-Najah National University Hospital.

Methods In this cross-sectional study, we recruited patients older than 18 year who were admitted to the An-Najah National University Hospital. Participants underwent oesophageal gastroduodenoscopy and gastric biopsy in the hospital's laparoscopic department. Biopsies were taken from the gastric antrum and body during endoscope. The analysis of the biopsies included rapid urease test, histological examination to detect *H pylori*, and bacterial culture using selective media. After culturing the bacteria for 7 days, we tested oxidase, urease, and catalase activity. Cultures that were positive for *H pylori* were tested for their susceptibility to various antimicrobial agents. Ethical approval was obtained from the An-Najah National University before starting the data collection. All participants gave informed consent before the procedure.

Findings Between July 1, 2016, and Jan 1, 2017, we enrolled 91 patients with dyspepsia (49 women and 42 men). 38 (42%) patients had an *H pylori* infection. *H pylori* was found in three (100%) of three patients with a duodenal ulcer, three (46%) of ten patients with a gastric ulcer, 20 (54%) of 37 patient with gastritis, and 12 (41%) of 29 patient with a normal endoscopic appearance. When isolates of *H pylori* isolates were subjected to sensitivity tests against six antibiotics, ciprofloxacin was the most effective drug against *H pylori* (0% resistance), followed by levofloxacin (0%), moxifloxacin (3%), and amoxicillin (18%). Metronidazole and clarithromycin were the least effective drugs, with resistance rates of 100% and 47%, respectively.

Interpretation *H pylori* isolates from the Palestinian patients included in this study were highly resistant to the traditional first-line antibiotics clarithromycin and metronidazole. However, fluoroquinolones and amoxicillin are still effective antimicrobial choices. This could be the result of the unjustified wide use of antibiotics in the Palestinian community and the use of clarithromycin-based therapy as first-line treatment for *H pylori*, which in turn has led to increased rates of *H pylori* eradication failure. We recommend using quinolone-based regimens for *H pylori* and rationing the use of antibiotics in Palestinian patients.

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Contributors

The study was designed by ST and AS. JK and WA collected and analysed data and wrote the Abstract. QA did the procedure and collected samples. LK handled the samples. KA did the statistical analysis. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

General versus spinal anaesthesia for caesarean section: a quasi-controlled trial

Raed Tafish, Khaled I Abu El Aish, Walid Madi

Abstract

Background General anaesthesia and spinal anaesthesia are commonly used for caesarean sections. The aim of this study was to compare the outcomes from caesarean sections with these two types of anaesthesia.

Methods In this quasi-controlled trial, we enrolled women undergoing caesarean sections at Al-Helal Al-Emirati Hospital, Rafah, Gaza Strip. Women were assigned either to general anaesthesia (20% intravenous propofol for anaesthesia induction followed by atracurium for muscle relaxation, and nitrous oxide and oxygen for anaesthesia maintenance) or to spinal anaesthesia (0.5% hyperbaric solution bupivacaine with 20 µg fentanyl intrathecally). Outcome measures were length of hospital stay, length of operation, postoperative pain assessment by visual analogue scales (VAS; range 0–10, where 0 is no pain and 10 is very bad pain) 1 hour after the operation, time from anaesthesia to demand for analgesia, amount of analgesics used in 24 h, and headache after the operation. Data were analysed using SPSS version 20. Groups were compared using the Mann-Whitney U-test, Student's *t* test, and odds ratio. A *p* value less than 0.05 was significant. The study was approved by the hospital ethics committee, and verbal informed consent was obtained from each participant.

Findings 181 women (aged 19–46.5 years) were enrolled in this study. 79 women received general anaesthesia, and 102 women received spinal anaesthesia. The women did not differ in baseline characteristics such as mean age (30.6 years [SD 6.5] in the general anaesthesia group vs 28.5 years [5.4] in the spinal anaesthesia group; *p*=0.077), and weight (82.2 kg [SD 14.2] vs 28.5 kg [5.4]; *p*=0.263). We found no difference between the groups in length of hospital stay (38.7 h [SD 14.5] vs 40.1 h [12.5]; *p*=0.541), duration of caesarean section (39.9 min [SD 10.1] vs 41.6 min [9.1]; *p*=0.077), time to demand for analgesia (2.4 h [SD 2.0] vs 2.5 h [1.1]; *p*=0.634), and hospital readmission (odds ratio 0.77, 95% CI 0.11–5.59). VAS 1 h after the operation was higher in the general anaesthesia group than in spinal anaesthesia group (5.43 [SD 2.9] vs 2.38 [2.32]; *p*=0.001). Fewer patients who had general anaesthesia needed second and third analgesics than patients who had spinal anaesthesia (23% of women in the general anaesthesia group vs 47% of women in spinal anaesthesia group needed two analgesics; 4% vs 27% needed three or more analgesics; *p*<0.0001). Two patients in the spinal anaesthesia group had headache after the operation (OR 0.559, 95% CI 0.490–0.636).

Interpretation General and spinal anaesthesia had a similar safety profile and can be applied according to patients' needs and medical situation in the hospital.

Funding None.

Contributors

RT contributed to the study procedure, study design, data collection and revision of the Abstract. KIAEA contributed to the conceptualisation of the study, study design, data collection, statistical analysis, the writing and revision of the Abstract, input for data analysis, and data management. WM contributed to the study procedure. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

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Management of pregnancy loss in the first trimester: a retrospective audit

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Abstract

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Background Early pregnancy loss occurs in 10% of all clinically recognised pregnancies. 80% of pregnancy losses occur in the first trimester. Offering choice and participation in the management decisions is essential to patient-centred care. The aim of this study was to assess the management of first trimester pregnancy loss at the Emirati Hospital in Rafah, Gaza Strip.

Methods In this retrospective audit, we compared the management of first trimester pregnancy loss at Emirati Hospital using the American College of Obstetricians and Gynecologists guidelines (ACOG, No. 150, May 2015). Data were obtained from patients' medical records.

Findings 50 cases were identified in November and December, 2015. 32 (64%) cases were missed miscarriages (an ultrasound finding of a non-viable pregnancy in an asymptomatic patient), 13 (26%) were incomplete miscarriages, and five (10%) were complete miscarriages. All cases were haemodynamically stable. Only seven (14%) cases were managed medically (200 µg misoprostol four times sublingually without repetition). 43 (86%) cases were treated surgically. Of these, two (4%) cases were treated without prior medical management because of acute presentation with bleeding, and 41 (82%) cases were treated after failure of medical management, when expulsion of conception products did not occur after the full dose of medical management regimen. 43 (86%) women received antibiotic prophylaxis after surgery without specific indication, which is not recommended. Seven (14%) women received no antibiotics, whereas others received a variety of different antibiotic regimens. Expectant management did not require admission, and these cases were not recorded in this audit.

Interpretation This audit showed a high percentage of failure in the medical management regimen and poor adherence to antibiotic prophylaxis guidelines in surgical management. Furthermore, all patients not presenting with acute bleeding were treated with medical management first, without an opportunity to choose surgical management. To improve outcomes of medical management and offer patients a real choice of management methods, clear local guidelines need to be developed with an evidence-based medical management regimen (the ACOG regimen reports an expulsion rate of up to 84%). Regular audit and team feedback could further improve guideline adherence also in the use of antibiotic prophylaxis.

Funding None.

Contributors

Study design was done by RM, RA, and HA. Data collection was done by RM, NS, RH, and HD. Data analysis and interpretation of data was done by RM. The Abstract was drafted by RM and BB and revised by all authors. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

Pain management during labour at the El-Emarati Hospital: a clinical audit

Reem Y Dabbour, Tayseer A Hassan, Maha S Faqawi, Bettina Böttcher

Abstract

Background The aim of this study was to assess the practice of pain management for women in labour at El-Emarati Hospital in Rafah, Gaza Strip, and to compare this management with the guidelines by the National Institute for Health and Care Excellence (NICE).

Methods A data collection sheet was prepared and completed for each patient admitted to the delivery room. Patients were enrolled consecutively between Feb 1 and April 1, 2016. Data collection sheets, based on NICE guidelines, were completed by the audit team (TAH, MSF, and RYA). Verbal consent was obtained from all participants.

Findings 50 patients were included in the audit. 22 patients were primigravidae, and 28 patients were multigravidae. At least one or more non-pharmacological pain management method was used for each patient. 50 (100%) patients were managed by breathing and relaxing techniques. 35 (70%) patients also received abdominal massage. 20 (40%) patients had their pain managed pharmacologically. None of the patients was informed beforehand about possible side-effects of the drugs used, and none of the patients was offered or received regional anaesthesia for pain management during labour.

Interpretation We found a substantial shortfall in the management of pain during labour, especially as many options and techniques are not used or offered to patients. Another weakness was the limited discussion and lack of choice available to patients with respect to the use of pain relief. Pain is a highly subjective experience and varies greatly between patients, so preferences for use of pain relief will differ between individuals, and this should be reflected in practice.

Funding None.

Contributors

RYD contributed to the study design and data collection, wrote the data collection sheet, and wrote the Abstract. TAH contributed to the data collection, data analysis and interpretation, and the figures. MSF contributed to the data collection and the writing of the Abstract. BB contributed to the revision of the Abstract and supervision. All authors have seen and approved the final version of the Abstract for publication.

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Oral zinc supplementation for children with acute diarrhoea: a quasi-experimental study

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Abstract

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Background Diarrhoea causes 15% of under-5 mortality in developing countries. Zinc (Zn) stores in the body are known to be depleted during acute diarrhoea. The aim of this study was to evaluate the efficacy of Zn given with standard treatment to children with acute or moderate diarrhoea.

Methods In this quasi-unmasked, parallel-group study, we enrolled children with diarrhoea at El-Dorra Paediatric Hospital, Gaza Strip, occupied Palestinian territory. Inclusion criteria were children with more than three unformed stools in the preceding 24 h, duration of diarrhoea up to 72 h, and ability to accept oral fluids or feeds. Recruited children were assigned equally to either oral rehydration salts (control group) or oral rehydration salts plus Zn sulphate (Zn group; 10 mg for children younger than 6 months; 20 mg for children aged 6 months and older). All treatments were taken orally for 14 days. Primary outcomes were duration and frequency of diarrhoea. Secondary outcomes included changes in bodyweight, drugs side-effects, and episodes of any or severe dehydration. Data were analysed with SPSS. Outcome measures were compared with the Mann-Whitney U-test, student's *t* test, odds ratio, or χ^2 test. The study was approved by the ministry of health and the Helsinki Committee in the Gaza Strip. Parents of the children provided verbally informed consent before participation.

Findings We enrolled 140 children (aged 1–120 months). Duration of diarrhoea in the Zn group was shorter than in the control group (2·34 days in the Zn group vs 7·20 days in the control group; $p < 0\cdot0001$). The frequency of diarrhoea was also reduced to a greater extent in the Zn group than in the control group (from 6·38 times daily before treatment to 2·38 times daily after treatment vs from 6·99 times daily to 4·68 times daily after treatment). Bodyweight increased in 50 (71%) children in the Zn group, whereas 50 (71%) children in the control group lost bodyweight during the treatment period ($p < 0\cdot0001$). Constipation was seen in two (3%), 12 (18%), and ten (15%) children in the Zn group on days 5, 6, and 7 of treatment, respectively, whereas none of the children in the control group had constipation at any time ($p = 1\cdot51$ for day 5; $p < 0\cdot0001$ for day 6; and $p = 0\cdot001$ for day 7).

Interpretation Zinc supplementation added to standard treatment with oral rehydration salts was effective and resulted in good treatment of diarrhoea.

Funding None.

Contributors

RAD contributed to the conceptualisation of the study, study design, data collection, and input for data analysis. KAEA contributed to the conceptualisation of the study, study design, statistical analysis, the writing and revision of the Abstract, input for data analysis, and data management. MER, NEG, and AS contributed to the study procedure, data collection, and the revision of the Abstract. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

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The effects of the Israeli siege on health provision in the Gaza Strip: a qualitative and theoretical analysis

Ron J Smith

Abstract

Background Siege, a process of political domination aimed at isolating an entire population, is a unique threat to health-care provision. The aim of this study was to qualitatively examine the effects of the Israeli siege on the practices and systems that underlie health in the Gaza Strip.

Methods Data were from participant observation between 2009 and 2017, including 20 interviews with doctors and health administrators in non-governmental organisations (NGO), government, and UN sectors. All participants were provided with a description of the study and provided written consent to participate. The study was approved through the Human Subjects Review process at Bucknell University and the University of Washington. The data were analysed using a critical political economic framework, based on the concepts of primitive accumulation, accumulation by dispossession, surplus populations, and de-development. These analytical frames are further developed to interpret neoliberal trends in health-care systems organising and financing as they apply in the distorted social and economic context of siege.

Findings The elimination of political sovereignty through the twin processes of occupation and siege are the primary impediments to the successful promotion of public health in the Gaza Strip. Findings indicate that siege impinges on effective health-care provision by withholding materials and resources and undermining the health care at a systems level. These strains pose considerable threats to health care, within the ministry of health and among other entities in the Gaza Strip that deliver care. Gazan society is divested of the underpinnings necessary for a well functioning sovereign health-care infrastructure. Instead of a self-governing, independent system, this analysis reveals a system that is comprised of captive clients who are entirely dependent on Israel, international bodies, and the aid industry for goods and services, with no means of independent development.

Interpretation The siege represents a totalising social determinant of public health in the Gaza Strip, and it has significant and deliberate deleterious effects on the provision of medical care and exacerbates problems in overstretched medical services. These findings point to the importance of foregrounding the geopolitical context for analysis of medical service delivery within conflict settings. The data indicate formative trends in health-care provision in the Gaza Strip. Although the siege creates a seemingly unique economic context for analysis of health-care provision, critical analyses that deconstruct the depredations of neoliberalism in the health-care setting provide a useful framework for analysis of the failings of the health-care sector. Indeed, health-care providers are in an impossible position of attempting to provide quality care without the ability to coordinate with their colleagues in other sectors, and without substantial support from the international community. The final analysis also highlights the importance of advocating for sovereignty and self-determination as related to health systems, and it suggests that successful health-care provision is impossible without a strong analysis of the political and economic context.

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Drug dosing errors in outpatient paediatric patients at primary health-care centres in Nablus: a cross-sectional study

Rowa' Al-Ramahi, Hamzeh Al-Zabadi, Ghadeer Al-Shareef

Abstract

Background Paediatric patients are highly sensitive to drug-related problems such as dosing errors. Some dosing errors are preventable with suitable strategies. The aim of this study was to assess the prevalence of drug dosing errors in outpatient paediatric patients who attended primary health-care centres in Nablus and to identify possible associated factors.

Methods For this cross-sectional study, we reviewed doctors' prescriptions for paediatric patients aged between 1 day and 12 years. The prescriptions were obtained from all primary health-care centres in Nablus. The drug dosing errors were defined as overdose, underdose, and inappropriate frequency or duration. The study was approved by the Institutional Review Board of An-Najah National University and the Palestinian Ministry of Health.

Findings 400 paediatric prescriptions were reviewed between August and December, 2015. The patients were prescribed 782 medications, including 29 different drugs. The most commonly prescribed drugs were paracetamol (30% of prescriptions), chlorpheniramine (17%), and amoxicillin (16%). 702 (90%) of 782 prescribed drugs were for oral use. Most prescriptions included either one error (32%) or two errors (31%). Of the 782 prescribed drugs, 168 (22%) were potential overdoses, 200 (26%) were potential underdoses, and 51 (7%) were drugs that should not have been prescribed in similar conditions according to age. 37 drugs were prescribed in a frequency that might be more than needed, whereas 231 drugs were potentially prescribed less frequently than needed. The duration of eight treatments was potentially more than needed, whereas 28 treatments had potentially shorter duration. The potential for inappropriate dosing errors was associated with weight ($p=0.006$), age ($p<0.001$), centre ($p<0.001$), and number of drugs prescribed ($p<0.001$).

Interpretation Medication dosing errors in young outpatient children in Nablus were common. Many variables were found to be associated with errors such as weight, age, number of medications prescribed, and the centre. Studies on the clinical effect of these potential errors and effective error prevention strategies are needed.

Funding None.

Contributors

RA-R and HA-Z contributed to the study design, data analysis, data interpretation, and the writing and revision of the Abstract. GA-S collected the data and participated in study design, data analysis and data interpretation. All authors have seen and approved the final version of the Abstract for publication.

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The protective role of maternal post-traumatic growth and cognitive trauma processing in Palestinian mothers and infants: a longitudinal study

Safwat Y Diab, Sanna Isosävi, Samir R Qouta, Saija Kuittinen, Raija-Leena Punamäki

Abstract

Background Women at pre partum and post partum are especially susceptible to war trauma because they struggle to protect their infants from danger. Trauma research suggests increased problems in maternal mental health and infant development. Yet many cognitive-emotional processes affect the trauma survivors' mental health, such as post-traumatic growth and post-traumatic cognition. The aim of this study was to examine whether a mother's high post-traumatic growth and optimal post-traumatic cognition could protect their own mental health and their infant's stress regulation from the effects of traumatic war experiences.

Methods This three-wave prospective study involved Palestinian women living in the Gaza Strip who were at the second trimester of pregnancy (T1), women with infants aged 4 months (T2), and women with children aged 12 months (T3) months. The participants reported their war experiences in a 30-item checklist of losses, destruction, and atrocities in the 2008–09, 2012, and 2014 military offensives. Post-traumatic growth was assessed by a 21-item scale and post-traumatic cognition by a 36-item scale. Maternal mental health was assessed by post-traumatic stress disorder (PTSD), depressive, anxiety, and dissociation symptoms at T1 and T3, and infants' stress regulation was assessed with the Infant Behaviour Questionnaire at T2 and T3.

Findings We included 511 women at T1, 481 women at T2, and 454 women at T3. High maternal post-traumatic growth and post-traumatic cognition had protective roles. Post-traumatic growth had a protective effect on maternal mental health since severe exposure to traumatic war experiences was not associated with maternal PTSD, depression, and dissociation if women showed high post-traumatic growth, as indicated by the significant interaction effect between post-traumatic growth and war trauma on each of the three symptoms. Post-traumatic cognition had a protective effect on infant development since severe exposure was not associated with dysfunctional infant emotion regulation when mothers reported optimal post-traumatic cognition, as indicated by the significant interaction effect between post-traumatic cognition and war trauma on each of negative affectivity and surgency or extraversion.

Interpretation The nature of cognitive emotional processing of war trauma could explain the distinct roles of post-traumatic growth and post-traumatic cognition. High post-traumatic growth involves increased social affiliation, spiritual awareness, and psychological strengths resulting from painful and traumatic experiences. In the national struggle for independence, post-traumatic growth is often associated with heroism and even hardiness, which might benefit a mother's mental health but not their infant's wellbeing. Optimal post-traumatic cognition indicates successful and harmonious trauma processing, which enables mothers to be more reflective and sensitive to their infant's needs. Interventions to promote healthy infant development in war settings should encourage and support mothers' effective cognitive-emotional processing of traumatic experiences.

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Contributors

R-LP did the statistical analysis. SYD wrote the Abstract with input from R-LP, SI, SRQ, and SK. All authors have seen and approved the final version of the Abstract for publication.

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Inpatient management of community-acquired pneumonia at the European Gaza Hospital: a clinical audit

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Abstract

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Background Disease severity scores such as CURB-65 are often used to guide the management of patients with community-acquired pneumonia. Early and adequate empirical antibiotic treatment reduces mortality. The aim of this study was to examine the severity assessment and management of patients presenting with community-acquired pneumonia at the European Gaza Hospital in the Gaza Strip and to compare this to the best available evidence.

Methods Medical records of all patients admitted to the European Gaza Hospital with a diagnosis of community-acquired pneumonia between Dec 1, 2015, and March 31, 2016, were reviewed retrospectively. Clinical practice was compared with recommendations for severity assessment and the management of community-acquired pneumonia, as reported in guidelines by the National Institute for Health and Care Excellence and the American Thoracic Society. Ethical approval was obtained from the General Directorate of Human Resources.

Findings 141 patients were admitted to the European Gaza Hospital with community-acquired pneumonia during the study period. Records of 41 patients were missing or could not be retrieved. The mean age of patients was 55·9 years (SD 20·2). Blood urea and nitrogen concentrations were not documented for 48 (48%) patients, and respiratory rate was not documented for 73 (73%) patients. The CURB-65 score was determined only for 12 (12%) patients. Microbiological testing was done only for two (2%) patients. Although 18 different antibiotic regimens were used, 81 (81%) patients received a β -lactam plus macrolide combination therapy, either given alone (49 [49%] patients) or with another antibiotic (32 [32%] patients), which is in line with the recommendations for patients admitted to hospital with community-acquired pneumonia. 43 (43%) patients received anti-viral drugs, and 41 (41%) patients received corticosteroids.

Interpretation Clinicians were poorly adherent to current standards of care in severity assessment and management of community-acquired pneumonia. Moreover, the broad range of antibiotic regimes used, without microbiological guidance, was inappropriate and will have increased the risk of antibiotic resistance. A local evidence-based clinical practice guideline should be developed and implemented. Furthermore, the documentation system should be improved to enhance the continuity of care and clinical auditing.

Funding None.

Contributors

SY and YA designed the study and collected the data. LA and SY did the data analysis and interpretation. SY wrote the abstract. All authors helped revise the Abstract. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

Depression in patients treated with haemodialysis: a cross-sectional study

Samah W Al-Jabi, Ansam Sous, Fatimah Jorf, Mahmoud Taqatqa, Mahdi Allan, Lamees Sawalha, Enas Lubadeh, Sa'ed H Zyoud, Waleed M Sweileh

Abstract

Background The increasing incidence of end-stage renal disease in the Palestinian population and the effect of the disease on the psychological status of the patient underlie the importance of increasing knowledge about the mental health status of patients with end-stage renal disease. The aim of this study was to estimate the prevalence of depression in Palestinian patients treated with haemodialysis and its correlation with patients' clinical characteristics, health-related quality of life (HRQoL), and adherence to medications.

Methods In this cross-sectional study, we collected a convenience sample from ten haemodialysis centres in the West Bank, occupied Palestinian territory, over 3 months in 2015. The Beck Depression Inventory-II scale (BDI-II) was used to assess depression, the EuroQol-5 Dimension scale was used to assess HRQoL, and the Morisky Medication Adherence-8 scale was used to assess compliance. We used SPSS version 16.0 for all statistical analyses. The study was approved by the Institutional Review Board at the An-Najah National University. Informed verbal consent was obtained from the participants before the start of the study.

Findings We interviewed 286 patients who were treated with haemodialysis. The mean age was 52.0 years (SD 14.3), and 172 (60%) patients were men. The median number of years of dialysis was 2 years (IQR 1–4). 209 (73%) patients had depression. Most participants were non-compliant with their drug regimens and had low HRQoL. High depression scores were associated with old age ($p < 0.0001$), female sex ($p = 0.036$), low income ($p = 0.041$), living in rural areas or in a camp ($p = 0.032$), not doing regular exercise ($p < 0.0001$), unemployment ($p < 0.0001$), having multiple comorbidities ($p < 0.0001$), and low adherence to medications ($p = 0.0075$). We found an inverse correlation between depression and HRQoL ($p < 0.0001$).

Interpretation This study is to our knowledge the first of its kind in the West Bank. The incidence of depression is higher than reported in other communities. Most patients treated with haemodialysis were moderately to severely depressed and had low HRQoL. There is a need to provide for a patient's needs in term of psychologist interviews and pharmacological and non-pharmacological interventions.

Funding None.

Contributors

SA had the idea for the study, led the study design, data analysis, and interpretation, and drafted the Abstract. AS, FJ, MT, MA, LS, and EL interviewed patients, participated in data interpretation, and contributed to the drafting of the Abstract. SZ and WS had the idea for the study, participated in the study design, and revised the Abstract for important intellectual content. All authors have seen and approved the final version of the Abstract for publication.

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Factors affecting adherence to appointment system in the clinic for non-communicable diseases in UNRWA's Khan Younis Health Centre and the role of mobile phone text messages to improve adherence: a descriptive cross-sectional study

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Abstract

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Background To meet the emerging needs of the increasing numbers of patients with non-communicable diseases and to provide optimum care with optimum contact time and minimum waiting time, as stated in UNRWA guidelines, the mobile phone text messaging system was implemented in UNRWA centres to remind patients of upcoming appointments and to thereby improve the quality of care for vulnerable patients and regulate the work load in the clinics for non-communicable diseases. The aim of this study was to assess the causes for lack of adherence to the appointment system at UNRWA centres.

Methods This descriptive cross-sectional study was done in the UNRWA's Khan Younis Health Centre (KYHC), which serves the same refugee population as other UNRWA health centres and follows the same guidelines with minimal variation. Data were collected through interviewer-administered questionnaires, with ten medical staff members involved in the appointment process and 50 patients with non-communicable diseases selected randomly from patients attending the KYHC. The text-message reminder intervention targeted 1000 patients with non-communicable diseases and consisted of an electronic message technique that was developed to remind patients about the day and time of upcoming appointments. Administrative approval was obtained from the chief of UNRWA health programme. Verbal consent was obtained from participants. We followed the Modified International Code of Ethics Principles (1975), known as the Declaration of Helsinki.

Findings The main barrier to adherence to appointments in the clinic for non-communicable diseases was forgetting the appointment. Other factors were lack of awareness, clinic overcrowding, appointments that do not match the patient's preference, availability of other service providers, and financial issues. In March, 2016, after the completion of the intervention, the proportion of patients that adhered to their appointment by date and time was 76%, compared with about 45% in January and February, 2016 ($p=0.013$).

Interpretation The text messaging reminder is a successful way of improving patient's adherence to appointments in UNRWA clinics for non-communicable diseases. The intervention should be continued and integrated in daily work. More financial resources are needed to support the text messaging reminder system.

Funding None.

Contributors

SAN contributed to this study with writing the proposal, data analysis, data interpretation, tables, figures, and the writing and revision of the Abstract. TAS contributed to this study with data collection, data management, and input for data analysis. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

Adenovirus respiratory tract infections in infants: a retrospective chart-review study

Shaden Jobran, Randa Kattan, Jamal Shamaa, Hiyam Marzouqa, Musa Hindiyeh

Abstract

Background Human adenoviruses have an important role in paediatric respiratory tract infections. They are estimated to cause 2–5% of the overall respiratory tract infections and 4–10% of all pneumonias. The aim of this study was to evaluate the clinical presentation and effect of adenoviral infection on the management of infected infants.

Methods Data were collected from the medical records of patients infected with adenovirus and admitted to Caritas Baby Hospital. Adenoviral respiratory tract infections were diagnosed from nasopharyngeal aspirates using direct fluorescent antibody staining. We analysed patient clinical presentation, medical workup, laboratory workup, and antibiotic administration. This study was approved by Caritas Baby Hospital Medical Research Committee.

Findings We reviewed records for 491 patients admitted to Caritas Baby Hospital with adenoviral infection between Jan 1, 2006, and June 30, 2016. Adenoviral activity was noted throughout the months of the study period, with major activity during late winter, spring, and early summer. Boys were most affected (male to female ratio 2:1). Upon admission, 187 (38%) patients were afebrile. According to the clinical presentation, 327 (67%) patients presented with upper respiratory tract infection symptoms, 165 (34%) with gastrointestinal tract symptoms, 59 (12%) with difficulty of breathing, and 46 (9%) with conjunctivitis. 279 (57%) patients had leucocytosis, whereas the C-reactive protein titre was more than 50 µg/mL in 228 (46%) patients. 92 (19%) patients needed a lumbar puncture. Overall, 354 (72%) patients received antibiotic treatment. Length of hospital stay was 1–10 days, and most patients were discharged from hospital on day 3. The average cost of hospitalisation was US\$1180·5 per patient.

Interpretation Adenoviral infections in infants can present with a sepsis-like picture, mandating unnecessary interventions. Clinical laboratories in hospitals must therefore have rapid and sensitive adenovirus detection techniques to assist the doctors in making appropriate treatment decisions.

Funding Medical Research Committee of Caritas Baby Hospital.

Contributors

SJ and MH contributed to the study design, data analysis, data interpretation, the writing and revision of the Abstract, data collection, and data management. RK contributed input for data analysis and collection and to the revision of the Abstract. JS and HM contributed to the data interpretation and the revision of the Abstract. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

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Improving patient safety in Palestinian hospitals: a cross-sectional and retrospective chart review study

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Abstract

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Background Patient safety is the central component of health-care quality. There is a lack of patient safety data in the occupied Palestinian territory. The aim of this study was to assess patient safety and explore relationships between patient safety culture and the prevalence of adverse events at the department level.

Methods Between May 25, 2009, and June 1, 2010, the Arabic validated Hospital Survey on Patient Safety Culture was used to measure the norms and perceptions of health professionals regarding safety. The survey was used in eight medical departments in two hospitals (Al Makassed hospital and Al Ahli hospital in the West Bank; four departments per hospital). During the same period, a retrospective review of medical records was done to identify adverse events using the validated Palestinian version of the Global Trigger Tool. Descriptive statistics and Spearman's rho coefficient were used. Ethical approval was obtained from the participating hospital boards and the Palestinian health authorities, and written consent was obtained from participants.

Findings 640 randomly selected records (320 records per hospital) were reviewed, and 428 health-care workers participated in the safety culture assessment (response rate 74%). 213 (50%) participants were nurses, 163 (38%) were doctors, and 52 (12%) were other health-care professionals. Patients had a mean age of 44·2 years (SD 19·6; range 18–95) and a mean length of stay of 4·8 days (SD 5·6; range 1–70). 91 (14%) records included an adverse event. Adverse events were negatively associated with the aggregate safety culture ($r=-0\cdot905$; $p=0\cdot0009$), hospital management support ($r=-0\cdot881$; $p=0\cdot0017$), non-punitive response to errors ($r=-0\cdot731$; $p=0\cdot019$), communication and feedback on errors ($r=-0\cdot905$; $p=0\cdot0009$), teamwork ($r=-0\cdot886$; $p=0\cdot0021$), organisational learning ($r=-0\cdot778$; $p=0\cdot011$), and supervisor actions promoting patient safety ($r=-0\cdot857$; $p=0\cdot0029$), indicating that departments with a more positive patient safety culture had lower rates of adverse events.

Interpretations Safety must be improved for Palestinian patients. To promote patient safety, managers and policy makers should acknowledge and allocate resources for enhancing overall safety culture, hospital management support, non-punitive response, communication on errors, teamwork, organisational learning, and supervisor actions.

Funding Research and development, KU Leuven, Leuven, Belgium.

Contributors

All authors contributed to the writing and review of the Abstract. SN contributed to the study design, data analysis and interpretation, and data collection and drafted the Abstract. NN contributed intellectual content. KV contributed to the study design and outline. ME contributed to the study design and analysis and interpretation of data. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

Knowledge, attitudes, and practices of Palestinian people relating to organ donation in 2016: a cross-sectional study

Nidal Abukhaizaran, Mohammed Hashem, Osama Hroub, Souad Belkebir, Khaled Demyati

Abstract

Background Organ transplantation is the treatment of choice for organ failure, but organs are scarce and their availability is affected by relational ties, religious beliefs, cultural influences, body integrity, medical mistrust, and other factors. This aim of this study was to assess the knowledge, attitudes, and practices of Palestinian population with respect to organ donation.

Methods In this cross-sectional study, we used a validated questionnaire delivered by land telephone to collect data on the knowledge, attitudes, and practices relating to organ donation in the general population of the West Bank. Stratified sampling and simple random sampling were applied using data obtained from the Palestinian Telecommunication Group in 2016. Stata version 20 was used for statistical analysis, and a p value less than 0.05 was considered significant. Ethics approval was obtained from the Institutional Review Board of An-Najah National University, and all participants gave verbal informed consent.

Findings The questionnaire was completed by 385 (68%) of 565 people approached (mean age 42 years [SD 14.13]). 266 (69%) respondents were married, 311 (80%) were employed, and 375 (97%) were Muslim. 136 (35%) respondents were university students or post-graduates. Half of participants lived in urban areas. Local religious clergy were reported as being the source of general information by 150 (40%) participants. 273 (71%) respondents had adequate knowledge about organ donation, TV being the main source of information for 207 (60%) participants. 70 (26%) respondents would consider donation only after death, and 342 (67%) respondents would only consider donating to a close family member, whereas 341 (100%) respondents believed that their organ could be misused and 219 (64%) believed organ donation carries a health risk. 135 (49%) respondents preferred to donate to a recipient of the same religion. 266 (78%) individuals believed that organ donation should be promoted in the occupied Palestinian territory, although 188 (55%) reported organ donation to be culturally unacceptable. Religious beliefs and fears of complications were the main obstacles to organ donation. An adequate level of knowledge was associated with the female sex ($p=0.008$), level of education ($p=0.046$), monthly income ($p=0.041$), and marital status ($p=0.012$), whereas a positive attitude to organ donation was associated with religious score ($p=0.015$), marital status ($p=0.031$), and knowledge score ($p=0.003$). A high level of knowledge was associated with employment and the perception of organ donation as permitted in religion, whereas a positive attitude was associated with single marital status, high level of knowledge, and residence in cities.

Interpretation Despite adequate knowledge and positive attitudes towards organ donation, a comprehensive study is necessary to fully understand the local characteristics that influence organ donation by Palestinians and to better inform decision makers and future policies.

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Contributors

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Mental health and quality of life of elderly people in the Bethlehem district: a cross-sectional study

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Abstract

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Background The focus of this study was quality of life and mental health in elderly people living in the Bethlehem district. The aim of this study was to identify the most prevalent mental health problems and how they affect quality of life.

Methods This cross-sectional study was done in June and July, 2010. We recruited a convenience sample of elderly people (aged 65 years and older) living in the Bethlehem district of occupied Palestinian territory. Using a structured questionnaire, we assessed quality of life with the WHOQOL-BREF and current psychological status and distress with the Brief Symptom Inventor. Verbal consent form was obtained from all participants before their interview.

Findings 291 (97%) of 300 elderly people approached for this study completed the questionnaire. 101 (35%) participants described severe or very severe levels of somatisation. 39 (14%) participants reported severe or very severe obsessive compulsive symptoms, 27 (9%) complained of severe or very severe anxiety symptoms, and 37 (13%) had severe or very severe depression. 135 (46%) participants rated their quality of life as good or very good, but the physical health domain of the WHOQOL-BREF scale had the lowest scores (mean 50.9 [SD 21.4]) of all the domains. 103 (36%) participants perceived their physical health as being good or very good, whereas 95 (33%) participants rated their social life as good or very good. 117 (40%) participants were satisfied or very satisfied with their environment, and 119 (41%) participants evaluated their psychological health as good or very good. A stepwise regression analysis of variables indicated that an increase in psychological symptoms was independently associated with lack of education, living in a rural area, being economically dependent on others, and living with chronic disease. Poor quality of life was independently associated with increased age, lack of education, living in the home of sons, and being economically dependent on others.

Interpretation In view of the high prevalence of chronic diseases and their negative effect on psychological health and quality of life, we recommend the provision of better health care for elderly people, especially those living in rural areas. Our findings also show the importance of special education programmes for the physical and psychological health of elderly people.

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Contributors

SA calculated sample size and N A-K supervised and reviewed the research. Both authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

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Support groups for mothers of children with a handicap: a quantitative and qualitative study

Suzan Mitwalli, Yoke Rabaia, Hanna Kienzler

Abstract

Background Since 2013, the community-based rehabilitation programme in the north of the West Bank has established nineteen support groups for mothers following a Multi-Family Approach (MFA), with technical support from the Institute of Community and Public Health (Birzeit University) and the War Trauma Foundation (Netherlands). The main aims of the programme are to improve the wellbeing of mothers who have children with a handicap, to build support networks between vulnerable families, and to counter problems associated with social isolation and stigma. The MFA intervention is monitored and evaluated through an approach called outcome mapping.

Methods We used both quantitative and qualitative methods to evaluate mothers support groups in relation to outcomes and changes in behaviours, as reported by the mothers. We used a survey to investigate support group members' satisfaction with the intervention and changes in self-reported behaviour. Group interviews were done with mothers. We obtained approval from the University Research Ethics Committee and verbal informed consent from the mothers.

Findings 51 members from seven support groups completed the survey. Four group interviews were done, including 12 mothers in total. 33 (64%) mothers reported that their participation in MFA groups leads to stress relief and having fun. 18 (36%) mothers reported that they exchanged experiences during the group sessions. Mothers attended the groups due to their desire to solve pressing practical problems that they experienced when caring for their children, to receive more community support, and to be able to leave the house to attend meetings deemed useful by their families.

Interpretation The evaluation highlights the psychosocial value of support groups for mothers of children with a handicap. Having fun is an important factor ensuring regular group attendance and an indicator of improved wellbeing. Importantly, mothers were also able to experience stress relief by exchanging experiences and suggesting possible solutions in a caring and trusting environment.

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Contributions

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Declaration of interests

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Maternal and child health outcomes and intensity of conflict in the occupied Palestinian territory in 2000–14: a pseudo longitudinal analysis

Tiziana Leone, Diego Alburez-Gutierrez, Rula Gandour, Ernestina Coast, Rita Giacaman

Abstract

Background Armed conflicts can undermine a country's health-care capacity and disrupt the delivery of basic health services. Yet the public health consequences of war remain difficult to quantify, mainly because adequate data do not exist. We hypothesised that the ongoing conflict in the occupied Palestinian territory (including the restrictions on free movement and the strain on health-care services) have had detrimental effects on maternal and child health outcomes.

Methods We reconstructed data on delivery by caesarean section and diphtheria, pertussis, and tetanus vaccination with pooled data from Demographic and Health Surveys for 2000–14. We use probit regression for binary outcomes to explain changes in caesarean sections (using data on the last pregnancy of 8700 woman aged 15–45 years) and child vaccination (using 12 600 schedules). All-age mortality of non-combatants was used to measure the intensity of conflict (the explanatory variable). Excess mortality is commonly used as a proxy for conflict intensity in the absence of more detailed data.

Findings There is a general increase in the prevalence of all indicators (less so for caesarean sections, which increased from 10% to 20% between 2002 and 2014). Intensity of conflict is negatively associated with vaccination ($\beta=-0.2$; $p<0.0001$). A visual examination shows that vaccination is more susceptible to peaks in conflict intensity—prevalence increased from 65% to 80% in the years after the Second Intifada. Boys were more likely than girls to be vaccinated ($\beta=0.31$; $p<0.0001$). The negative association between conflict intensity and delivery by caesarean section is weaker but significant ($\beta=-0.04$; $p=0.007$). Education and wealth are not significant predictors for caesarean section.

Interpretation The conflict spares no one: women are affected irrespective of their socioeconomic status. The closer association between vaccination and intensity of conflict might result from their dependency on specialised resources and infrastructure. The slight negative correlation with caesarean delivery during conflict could be due to the difficulty of accessing health centres that provide caesarean section. It is also possible that the rates of planned caesarean section increases during calm periods. The most acute effects occurred when conflict intensity increased or decreased sharply, which suggests that these periods are crucial for health-care provision.

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Contributors

TL was co-principal investigator on the project, conceived the research question, and supervised the analysis. DA-G contributed to the research design and was in charge of data management and analysis. He presented the paper at the 2016/17 LPHA. RG contributed to the analysis and gave feedback on the presentation. EC and RG were co-principal investigators on the project, contributed to the analysis, and gave feedback on the presentation. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

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The Multi-Family Approach to facilitate a family support network for Palestinian parents of children with a disability: a descriptive study

Trudy Mooren, Yoke Rabaia, Suzan Mitwalli, Relinde Reiffers, Rosemarijn Koenen, Marguerithe de Man

Abstract

Background Families with a child who has a disability have extra difficulties, particularly when services are hard to reach or less available. In a collaborative project, the Institute of Community and Public Health, the Palestinian community-based rehabilitation programme, and international non-governmental organisations cooperated to share and develop expertise and knowledge on increasing families' resilience through establishing family groups. This contribution focuses on the use of the Multi-Family Approach (MFA) in a Palestinian context. MFA is a family-oriented method provided in a group setting. The aim of this study was to investigate the feasibility of implementing the intervention and the experiences gained by introducing the MFA in the West Bank.

Methods Parents taking the MFA approach learn from other parents by sharing experiences. Allowing parents to examine communalities and contrasts increases social support and parenting skills and decrease stress reactions. A high turnover of exercises and activities facilitate pleasant interactions. The basic principles of MFA are derived from both group and family interventions. Adjusting MFA entailed training of community-based rehabilitation teams (supervisors, field workers, and volunteers) through a learning-by-doing principle and employed a comparable strategy and structure to MFA. MFA was introduced and practiced, and early experiences were used to rehearse and elaborate. Training experiences were monitored and reflected upon within the team. A manual was written as a collaborative activity. No additional ethical approval was necessary. This project did not encompass the involvement, assessment, or monitoring of families or family members. The trainees participated on a voluntary base.

Findings Qualitative analyses of the monitoring reports from the training sessions show that MFA is feasible for families with a child with a disability in the West Bank but that organisational, translational, and cultural adjustments are needed for MFA to be suitable within a Palestinian context.

Interpretation MFA proved appropriate for the Palestinian setting. Most of the workers in the community-based rehabilitation programme and group participants were comfortable with the approach and adopted it within communities.

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Contributors

TM contributed to the design and implementation of training, the design and analysis of qualitative data, and the writing of the Abstract. RR contributed to the project design and coordination and the writing of the Abstract. YR and SM contributed to the coordination and design of training at West Bank, liaison between contributors, and the writing of the Abstract. RK was the advisor for training and supervision and contributed to the writing of the Abstract. MM was the advisor on training, wrote the workshop manual, and wrote the Abstract. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

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Job satisfaction and mental health of Palestinian nurses with shift work: a cross-sectional study

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Abstract

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Background Shift work is associated with sleep disturbances, mental health problems, and job dissatisfaction. Disparities between male and female nurses in the effect of shift work on mental distress and job satisfaction have been scarcely studied. We aimed to examine differences between female and male nurses in the associations between shift work and job satisfaction and mental health.

Methods In this cross-sectional study, male and female nurses were recruited to rate their job satisfaction on the Generic Job Satisfaction Scale and to complete the General Health Questionnaire (GHQ-30). Associations between shift work, mental distress, and satisfaction were estimated from χ^2 tests and linear regression analyses using Stata/IC10. The study was approved by the ministry of health. Written informed consent was provided by all participants.

Findings In 2012, we recruited 372 registered nurses from the Hebron governorate in the occupied Palestinian territory. 28 (8%) nurses were excluded, and the final sample (n=344) included 213 (62%) women and 131 (38%) men. 338 nurses rated their job satisfaction, and 309 nurses completed the GHQ-30. After adjusting for covariates, men with shift work reported significantly lower job satisfaction (β -coefficient -3.3 , 95% CI -6.2 to -0.5) than men with day schedules. Women with shift work reported significantly higher levels of mental distress (3.6 , 95% CI 0.3 to 7.0) than women with day schedules. Distress was reported by more women than men, but this difference concerned only nurses working day shifts. No differences in job satisfaction associated with shift work was seen between men and women. We found no demonstrable interaction between sex and shift work for job satisfaction (β -coefficient -1.6 , 95% CI -4.4 to 1.2) or distress (-0.03 , 95% CI -5.3 to 5.3).

Interpretation Shift work was associated with low job satisfaction in male nurses and high distress in female nurses. Because the study had a cross-sectional design and both exposure and outcomes were measured using self-report, the results should be interpreted with caution. Further studies should investigate whether shift work affects the quality of patient care.

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Contributors

YJ, PK, RB-P, and MBN designed the study. YJ contributed to data collection and monitoring. YJ, RB-P, and MBN prepared the datasets, wrote the first draft of the Abstract, and did the preliminary analysis. All authors participated in the conceptualisation of the work and have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

Acknowledgments

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Motivators and barriers to mammography screening uptake by female health-care workers in primary health-care centres: a cross-sectional study

Zaher Nazzal, Hisham Sholi, Suha B Sholi, Mohammad B Sholi, Rawya Lahaseh

Abstract

Background Mammography screening is an effective tool for early detection and management of breast cancer. Female health-care workers' awareness of breast cancer screening is important because their beliefs and behaviours could influence other women. The aim of this study was to assess mammography screening uptake by female health-care workers at primary health-care centres and to identify the primary motivators and barriers that affect uptake.

Methods This cross-sectional study included all governmental primary health-care centres in the West Bank. Governorates were grouped into three regions as follows: north West Bank (Nablus, Jenin, Tulkarm, Tubas, Qalqiliya, and Salfit), middle West Bank (Jerusalem, Jericho, and Ramallah), and south West Bank (Hebron, and Bethlehem). The study population included all female health-care workers older than 40 years. Those who performed mammography for a suspected mass or other breast abnormalities were excluded. A self-administered questionnaire was used to collect data on demographic characteristics, knowledge about mammography screening, the extent and regularity of mammography screening, and motivators and barriers influencing their mammography screening uptake. The rate of mammography screening uptake was calculated. χ^2 test and *t* tests were used to assess screening motivators and barriers. The study was approved by the Institutional Review Board of the An-Najah National University. Participation was voluntary, and written consent was obtained from each participant.

Findings 299 female health-care workers completed a self-administered questionnaire. The mean age of the participants was 46 years (SD 4.7). 284 (95%) women had adequate knowledge about breast cancer and mammography screening, and 149 (50%) women reported having had at least one mammogram. 62 (21%) women had had regular scheduled mammograms. The most frequent reported motivators were the perceived benefit that early detection of breast cancer is important for its management (269 [90%] women) and the belief that mammography can detect breast cancer before its symptoms appear (251 [84%] women). The most frequent barrier to mammography screening was being busy (140 [47%] women) and the lack of perceived susceptibility (125 [42%] women).

Interpretation Mammography screening was suboptimal in a population of female health-care workers. Educational interventions are needed to remove barriers that limit compliance to recommendations and to emphasise the importance of early detection in breast cancer management. Ensuring the availability and accessibility of screening services, particularly for health-care workers within their work settings, would improve the acceptance and compliance for mammography screening programmes.

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Contributors

ZN, HS, SBS, and MBS contributed to developing the study protocol, methods revision, data analysis and interpretation, and the writing of the Abstract. RL contributed to data collection and data interpretation. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests

We declare no competing interests.

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Patients' satisfaction with the non-communicable diseases services provided at UNRWA health centres in Gaza governorates: a cross-sectional study

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Abstract

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Background Most health-care organisations are increasingly interested in assessing the quality of their services. Patient satisfaction has a central role in the quality assessment in health care because it reflects the appropriateness of services from the clients' perspectives. The aim of this study was to assess the level of satisfaction in patients with non-communicable diseases (mainly diabetes and hypertension) who receive services from UNRWA health centres in Gaza governorates.

Methods In this cross-sectional study we chose a random sample of participants who presented to the randomly selected six health centres for treatment of non-communicable diseases. Through an exit interviewing technique, participants were chosen according to the study eligibility criteria and were requested to complete a questionnaire. The total instrument reliability (Cronbach's Alpha) was very high (0.936). To examine construct validity, we used Factor Analysis Principal Component Extraction with Varimax Rotation and Kaiser Normalisation with a cutoff point of 0.4. The reported variance was 42.28%, indicating high validity. Ethical approval from the Palestinian Ministry of Health (the Helsinki committee) was obtained, and verbal consent was obtained from the participants.

Findings 327 (82%) of 400 eligible patients completed the questionnaire. The reported overall satisfaction level with services for non-communicable diseases was moderately high (72%). The study extracted six domains that could constitute a framework for patient satisfaction with services at UNRWA clinics for non-communicable diseases. Elicited satisfaction scores about these domains varied and ranged from 57% to 84%. Although high satisfaction levels were found with general impressions, accessibility, communication, and interpersonal relationships, patients had a low level of satisfaction with the technical quality of services, clinic environment, and convenience of the services. People who were unmarried, working, living in the southern governorates of Gaza, educated, and had received educational materials were more satisfied than their counterparts. Patients who were seen by a specific health provider, who received all their medications from UNRWA, and who had not been turned away from a clinic without receiving the service they came for were more satisfied than their counterparts. The level of patient satisfaction did not differ by sex, age, presence of disability, presence of complications associated with non-communicable diseases, control status, kind of non-communicable disease, type of treatment provided, or duration of the non-communicable disease.

Interpretation Increasing the convenience and promoting the technical quality of work are important to improve the experience of patients with non-communicable disease. Furthermore, health managers and health providers could use these study findings to focus on those who are at risk of losing their satisfaction with services.

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Declaration of interests

I declare no competing interests.