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MCFD Graduation 28 November 2017

FMCFD Graduates,

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Journal of the Malta College of Family Doctors
The mission of the Journal of the Malta College of Family Doctors (JMCFD) is to deliver accurate, relevant and inspiring research, continued medical education and debate in family medicine with the aim of encouraging improved patient care through academic development of the discipline. As the main official publication of the Malta College of Family Doctors, the JMCFD strives to achieve its role to disseminate information on the objectives and activities of the College.

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Email: mcfdjournal@mcfd.org.mt
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Editor
Prof. Pierre Mallia

Assistant Editors
Dr Mario R Sammut, Dr Anton Bugeja

Member
Dr Glorianne Pullicino

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Continuing to revamp the MCFD

Prof. Pierre MALLIA

Firstly I would like to congratulate Dr Philip Sciortino, vice-President of the College, who is now president-elect. This means that after my term as President come to an end at the end of 2018, he will take over as the new President of the College. The term of one year for president-elect is meant for the person to take over and understand what is going on in the college. Of course it is a safeguard against someone coming in new from outside council and therefore needing a lot of time to come to terms with current issues (as had happened to me and hence the reason why I introduced it during one of our AGMs). Philip of course has no need for an update but there are issues which we will be discussing. Congratulations Philip.

I feel it is important that any president has a vision and I believe in management by objectives so as not to allow the many other items which arise deviate one from the goals on which one may have been elected. May I be allowed some nostalgia and some space for the benefit of members as well to overview many of the things we have done together during my two terms. When I was elected the first time in 2003 my vision was to establish a robust system for vocational training and to bring it to the level of international standards and indeed have external review. As has been amply written before the best path, given our culture of specialisation at the time in the UK, was the Membership of the Royal College of General Practitioners. We now have over fifty members who have MRCGP(INT), which they can get following the exam after vocational training and upon becoming members of the college. So I will list some of the things we have achieved together.

1. It is important to realise that the MRCGP(INT) was a long and arduous process. I say this because sometimes I hear people who downplay its importance and value. The idea had to be passed through an AGM – which I had done in 2004. Then there was a process of compiling the first MOU – the memorandum of understanding which I had eventually signed with Dr Roger Neighbour, who to my pleasure, having studied his books, was President of the RCGP at the time. We had to set up a system of training the trainers and then compile a curriculum. When I finished my term I am pleased that many took on the process and the curriculum was compiled and the vocational training set in place. This took years and in fact the new memorandum of understanding between the College, the RCGP and the Department of Health was signed by my predecessor Dr Jurgen Abela.
2. The above took on setting up training for both trainees and trainers. We had to move away from frivolous exams and have a system rigorous enough to merit recognition. For this I had asked the late Dr John Howard to appoint Dr Adrian Freeman as our International Development Advisor. He eventually also became a mentor – and it is important for any president to have a mentor in his or her goals. Adrian did a very good job and continued even in my 'dormant' years. This time round Dr Freeman became in charge of the office of the MRCGP(INT) in UK and we appointed Dr Jeremy Stupple. Of course my recommendation did carry weight as president but it did not guarantee who the selection board of the RCGP chose. I am glad that we enjoy the respect that our wishes are taken seriously into consideration. Jeremy had already been one of three External Development Advisors who come every three years to see what is being done and give recommendations. In the process I decided that it would be futile for me to travel to the UK alone and asked John Howard if he would sponsor a delegation whilst I sought sponsors for flights. This worked out very well and it was the only way to build enthusiasm around the concept I believe. I would not have been able to bring the aura from London where they were discussing

MRCGP(INT) for many countries on my own without reeling in many people. We had delegations ranging from five to seven for several years.

3. The Fellowship of the Malta College of Family Doctors had been left on the back burner for too long. I felt that for our 25th anniversary as a College I needed to push for this. Therefore we introduced the FMCFD for those who are paid-up members and have contributed 5 years of their time to activities of the College. The number was something to make us proud as many had given a lot of their time to building our College. I hope that those who are becoming members and obtaining also their MRCGP(INT) will be aware of these foundations as without them the College will cease to exist.
4. A year before that I had also suggested the introduction of the Honorary Fellowship. This is not a normal Fellowship and is the highest award the RCGP has for example. I suggested we follow suit and the first to receive it was Dr Denis Soler who was founding President of the College. He is the only one who has received it so far. It is important to note that Honorary Fellowship is an honour given to someone who has done considerable work for the College and need not in fact be a Family Doctor and neither a member of the medical profession at that.
5. The MMCFD was thus created and now to become a member one has to have vocational training and be on the specialist register. The specialist register is indeed another honour in our cap. Not only because all EU states can now call family doctors who have had three years of apprenticeship (only) to be called specialists, but because in our case one has to go through a true specialisation. It has in fact been suggested that the length of our training be increased and that trainees have to submit a research project. These are fine suggestions but they stalled somewhat because now we have a rigorous process for the curriculum to be amended by the Education Subcommittee. Whilst it may have frustrated some, it is also a sign of our seriousness in doing things and also because we have externals advisors and assessors. This is the only way that guarantees members a prestigious college to make them proud of.
6. APEL is a process of obtaining MRCGP(INT) by experiential learning. Whilst many had shied away from this process because it could have caused casualties I felt I owed it to those who have worked so hard in the College to open it. I supported all who applied and the RCGP accepted most – the criteria they chose were contributing to setting up vocational training and being involved in the process for younger doctors. This does not undermine the work done by those who may have not been given this honour. After all it is not an MCFD honour and the RCGP probably felt they could recognise only those who have worked in something they were directly involved and responsible for and that it was not in their place to make assessment on work done locally. For that there are our own awards – namely our Fellowship.
7. Fellowship of the RCGP. Of course those who get MRCGP(INT) may in the future see whether they can become Fellows of the RCGP. I am in the process of compiling another memorandum of understanding. It will go along the lines that MRCGP(INT) (and I stress, not MRCGP(UK)) will be for those who have membership by exam or by APEL who have continued to contribute for another five years after they obtain their membership. If they already contributed five years before that, one will have to see that they have continued to support in some way and remained in good standing with the MCFD. Of course it will be the MCFD which will present them, MRCGP(INT) being an international honour dependent on the country where it is awarded. We are interested in doctors who continue to educate themselves and have an interest in the advancement of family practice beyond their personal practice.
8. JMCFD. The new journal of the college was set up during the tenure of Dr Abela who had asked me to be editor of the journal. I had accepted on the conditions that I be allowed a certain amount of freedom and that the name of the journal be changed in order not to take on any responsibility for any previous work. Of course the board is chosen by council. I had to remain Editor, as no one would take on this position, even though I have to say that what I am responsible for are the logistics and I am indebted considerably to my team, Dr Glorianne Pullicino, Dr Anton Bugeja and Dr Mario R Sammut, who do most of the work, especially the latter. The journal has been successful and we managed three issues every year with increasing scientific contributions. It has been put on the University of Malta's website – they approached us themselves and we did not seek this honour. But an honour it is indeed. Obtaining adverts is not easy but providence has been in our favour and it seems we are guaranteed a good future.

9. EU projects. We attempted to apply for an EU project in my first term. Of course winning such applications is not easy but we learned considerably from this experience. I proposed that the College be a foundation from which any member of the College can apply for research funds, be they local or EU, and we provide the support (expenses for which of course have to come from the funds one applies for). The College provides a guarantee but all its expenses are paid through the projects themselves. Whilst we take on legal responsibility, the principal investigator and ownership of the project remains the person/s who applied for the funds. We are thus following the same procedure the University of Malta does. Our responsibility is taken care of in the auditing process which our auditor does to see that due diligence and good governance are in place. Those interested may contact me or the Hon. Secretary and arrange a meeting.
10. I am reluctant not to mention projects which we did in the past. These are the Irish Diplomas, the Masters degree of the University of Ulster and our own Diploma in Family Practice. There has been talk of re-vamping these but due to the controversy at the time we are being cautious that things do not compete with each other and that there should be more coherence in the interest of the MCFD. The diploma was the first post-graduate training programme for Maltese GPs which was drawn up in Malta. We had around 35 graduates who boast the letters DFP. It was at the time even considered by our IDA to be an ideal venue for the MRCGP(INT), following a more rigorous assessment evaluation. I am sure that those who hold Diplomas from the ICGP (including myself) and a Masters from Ulster are also proud and are indebted to those (Dr Mario Grixti and Dr Jean Karl Soler respectively) who worked to introduce these.

Ideas continue to abound but it is impossible to implement things without the will and dedication of someone to take over. I augur that the future will offer possibilities for our members to have courses and degrees and further continuing professional development. With revalidation by the medical council around the corner I hope during my last year to revolve this around CME which follows our curriculum – a concept which council has already accepted in theory. Dr Philip Sciortino has done a lot for our CPD programme and the quality had improved. Attendance to CPD meetings is high and those who go benefit considerably. Dr Sciortino has been influential in bringing hardware which allows for quizzes and indeed on-site questionnaire which may benefit research, generating graphs and statistics immediately.

November 2017 saw the graduation of new Fellows and new Members. The College is moving forward and I am sure that in the future it will be under the good guidance of Philip.

RESEARCH ARTICLE

Empowering the continuing professional development of general practitioner trainers in Malta through educational needs assessment

Dr Mario R SAMMUT and Dr Gunther ABELA

ABSTRACT

Background

It has been recommended that GP trainers in Malta undergo continuing professional development (CPD) in education and assessment through participation in regular meetings.

Aim

To encourage GP trainers to organise on-going CPD activities, and thus improve the training they provide, through an assessment of their educational needs.

Method

In 2015, two UK questionnaires used to evaluate specialist training provided by GP trainers were consulted in the development of online surveys for completion by current and recent GP trainees and trainers in Malta. The information collected was presented to two small groups of trainers for categorisation using an 'urgent/important/less urgent/less important' grid.

Results

In reply to the question 'What are your current development needs?', the top answers from trainers included developing teaching skills, keeping abreast with medical knowledge, and regular meetings with other GP trainers to discuss problems and share experiences. The trainees' top answers to the question 'What should the GP trainer do differently?' were 'nothing', being up-to-date regarding guidelines, and providing "exam-oriented" feedback. The most important and urgent recommendations made during the trainers' small group meetings included regular peer-support meetings between GP trainers to share teaching experiences and discuss problems, regular updates regarding guidelines and protocols recommended for exams, and more exam-oriented training to be provided to trainees.

Conclusion

The educational needs assessment carried out provided useful information that enabled the set-up of regular CPD meetings for GP trainers in Malta, thus meeting their educational needs and hopefully benefiting the quality of training provided to GP trainees.

Key Words

Continuing medical education, general practice/education, educational needs assessment, Malta

INTRODUCTION

Background

Specialist training in family medicine was introduced in Malta in 2007 after the Specialist Training Committee within Malta's Ministry for Health in 2006 approved a Specialist Training Programme in Family Medicine (STPFM) drawn up by the Malta College of Family Doctors (MCFD). By 2017 (ten years later), 70 doctors have graduated from the programme run within the Primary Health Care Department (PHCD), and another 39 are currently in training (Sammut, 2017).

The training programme lasts for 3 years, with each trainee working and training in family practice for half its duration and in other appropriate specialities for the other 18 months, under the supervision of a GP trainer and a relevant specialist respectively. Group academic teaching takes place in weekly 4-hour 'half-day release course' sessions run during autumn, winter and spring semesters. (Sammut and Abela, 2012)

The STPFM specifies that GP trainers "are established family doctors, have undergone training as teachers in family medicine, and are accredited as teachers in family medicine by the MCFD". The document goes on to state that one of the criteria for selection as trainers is "a personal commitment to teaching and to keep updated on educational methodology by attending appropriate lectures and courses". (Sammut, et al., 2011). GP trainers thus should undergo regular training in teaching and medical education and professional development as assessors / examiners (Specialist Accreditation Committee, 2003). The STPFM envisaged that such continuing professional development (CPD) in teaching and assessment would take place through participation in regular trainers' meetings (Sammut, et al., 2011). Unfortunately trainers' meetings were held only rarely and discussed mainly trainers' conditions of work and remuneration.

This shortcoming in the CPD of GP trainers was highlighted by Abela and Sammut (2015) in their quality management report of GP trainees' annual appraisals carried out in the STPFM during 2014. Although generic CPD courses for trainers were being provided by Malta's Postgraduate Medical Training Centre, the report recommended that GP trainers undergo further training in formative / work-based assessment during regular CPD meetings that are organised specifically for them (Abela and Sammut, 2015). This recommendation is backed by international evidence that the GP teacher does benefit from systematic training in teaching skills including supervision, feedback, assessment and educational management (Guldal, et al., 2012).

Despite the lack of participation by local GP trainers in CPD activities about teaching and assessment, GP trainees were found to be 78-91% satisfied with the teaching provided during family practice posts during a comparison of evaluation forms collected during the first (2007-08) and fifth years (2011-12) of the STPFM. Qualitative analysis revealed that, while the trainees found that such posts were beneficial in helping them to prepare for a GP career, they still made suggestions for improvements in the practice to facilitate training, mainly by working in same health centre as the trainer and through the provision of more clinical teaching despite the heavy workload and lack of staff in health centres. (Sammut & Abela, 2013)

In 1997, Hicks and Hennessy had recommended that, for health care professionals to be motivated and committed to their training and development, a training-needs analysis is used to inform such continuous professional development (Hicks and Hennessy, 1997). Such an initiative has already been successfully implemented within Malta's PHCD, resulting in a thriving CPD programme for health care professionals in its employment (Sammut, Bombagi and Cachia Fearne, 2012).

Aim

In order to encourage GP trainers to organise on-going CPD activities and thus improve the training they provide, an evaluation of GP training in Malta was carried out to identify the needs of GP trainers and practices. The findings were then presented to the trainers to enable them to prioritise such needs to be tackled during regular CPD meetings.

METHOD

An opinion-based research method utilising questionnaires was employed to identify the views of participants (Shuttleworth, 2008). An internet search was used to find questionnaires utilised to evaluate specialist training in family practice provided by GP trainers. Using the selection criteria that questionnaires had to be in the English language and consist of not more than 5 open questions (in order to facilitate a good response rate), two suitable questionnaires were identified, one for GP trainers (RCGP, n.d.) and another for GP trainees (Mehay, 2009).

By consulting these two questionnaires, online surveys were developed for the local scenario using the website www.SurveyMonkey.com, and in November 2015 electronic invitations were sent for anonymous completion of these surveys to current GP trainees and trainers and to those trainees who had just completed training and their trainers.

GP trainers were asked about the main strengths, weaknesses and constraining factors of their training work, what more/better they would like to do and what their development needs were. GP trainees were asked about their family medicine posts, specifically regarding the good things they experienced, the things they liked least, and what the management and the trainer should do differently.

The replies gathered from these surveys were transcribed into Microsoft Excel spreadsheets to enable qualitative and quantitative analysis by item content analysis.

The information collected was then presented to two small groups of GP trainers who were then asked to categorise their suggestions for topics to be tackled during CPD meetings using an 'urgent/important/less urgent/less important' grid.

Ethical considerations

No ethical approval was needed since sensitive personal data were not gathered.

RESULTS

Response rate

The response rate to the two surveys was >82% of 22 trainers and >73% of 22 trainees.

GP trainers' replies

The responses to the questions 'What do you think are the main strengths of your work as a GP trainer?', 'What do you think are the main weaknesses of your work as a GP trainer?' and 'What factors constrain you in achieving what you aim for in your training work?' are shown by frequency of replies in Tables 1-3.

While most issues raised in answer to these questions could not be solved through the organisation of CPD meetings for GP trainers, there were some points made that were relevant. These included (in order of frequency of mentions) 'no regular training for trainers / keeping up to date' (3 mentions), 'lack of collaboration with other trainers' (2), and 'lack of meetings and discussion with other trainers' (1).

In reply to the three-part question 'Would you like to do more? What would you like to do better? What do you think are your current development needs?' (see Table 4), the top answers from trainers included 'further / develop my teaching / mentoring skills (e.g. better tutorials, feedback, role play)' (9 replies), 'keep abreast (e.g. more time) with latest medical knowledge' (4), and 'regular meetings with other GP trainers to discuss problems and share experiences' (2).

GP trainees' replies

The GP trainees' responses to the questions 'What are the good things you have experienced in your posts in Family Medicine?', 'What is the thing you like/liked least about your posts in Family Medicine?', 'What should the management of the Health Centre (where you are/were placed) do differently?' and 'What should the management of the Private General Practice (where you are/were placed) do differently?' may be seen in Tables 5-8. The negative replies to the above questions were all related to organisational and not training issues.

The trainees' top three answers to the question 'What should the GP trainer do differently?' (see Table 9) were 'nothing / no issues / very satisfied' (7 answers), 'be evidence-based/up-to-date regarding guidelines/medical issues' (3), and 'early preparation for the CSA (clinical skills assessment) exam / provide feedback regarding consultations which is more "exam-oriented"' (2).

Proposals from GP trainers' small group meetings

The GP trainers' replies to the question 'What topics need to be tackled in GP trainers' CPD seminars?' were discussed in two small group meetings and put into a grid split in four categories entitled 'urgent and important', 'urgent and less important', 'important and less urgent' and 'less important and less urgent' (Table 10).

The most urgent and important of the proposals made by the trainers included regular peer-support meetings between GP trainers to share teaching experiences and discuss problems; regular updates re guidelines and protocols recommended for exams; and more exam-oriented training to be provided to trainees.

DISCUSSION

As a response rate of at least 60% has been recommended for paper-based surveys of teaching (Richardson, 2005), and since the response rates to such surveys done online are known to be lower than paper-based versions (Cook, et al., 2000; Nulty, 2008), this online study's response rate of over 82% and 73% of GP trainers and trainees respectively can be said to be more than acceptable, especially as it was of the total population of trainers and trainees and not just a sample.

Maltese GP trainees wished that their trainers' medical knowledge was more based on guidelines and that they provided feedback on consultations that was geared towards preparing them for the clinical skills assessment. While a European survey of educational needs of GP educators did reveal variations in the level and depth of their required knowledge (Guldal, et al., 2012), the proper provision of feedback was among the top characteristics identified among GP trainers in the Netherlands, which also included being critical and good at communicating, showing respect to trainees and inspiring them to reflect (Boendermaker, et al., 2003).

GP trainers in Malta bemoaned the lack of inter-collaboration and of CPD meetings that they thought

would benefit their medical knowledge and teaching/mentoring skills. These opinions echoed those of their colleagues in the United Kingdom (UK), who expressed a desire to develop more as teachers through various learning methods (Waters and Wall, 2007). UK trainers identified the challenge of finding protected time as an obstacle to their CPD and wanted more leadership and direction for their education CPD from their deanery, the regional organisation responsible for postgraduate medical training (Waters and Wall, 2008).

Following the educational needs assessment described in this article, Malta's Specialist Training Committee (STC) in Family Medicine agreed that the postgraduate training coordinators in family medicine and the MCFD organise a CPD meeting in 2016 for new GP trainers with the support of the PHCD. This meeting was repeated twice on 28th September and 7th October 2016 and facilitated by three GP trainers who satisfied the eligibility criteria in a call for applications issued by the College and the PHCD. (Sammut and Abela, 2016a; 2016b) After due consultation with the results of the educational needs assessment, the topics covered in the meeting were:

- Successful training and examination structure;
- Using case-based discussions (CBDs) and consultation observation tools (COTs) appropriately giving feedback and marking forms;
- Training: content, delivery and dealing with emerging issues.

The STC also recommended that, from 2017, GP trainers' CPD meetings (with pre-defined educational agendas agreed with the MCFD) take place at least three times a year, and that all trainers are obliged to attend at least one meeting a year (Sammut and Abela, 2016a; 2016b). This requirement that GP trainers actively participate in and co-deliver trainers' CPD meetings at least once yearly was subsequently included in the contract that the GP trainers sign with the PHCD (Primary Health Care Department, 2016).

The three GP trainers' CPD meetings in 2017 took place on 18th January, 31st May and 27th September with different topics (see Table 11) delivered by the trainers themselves based on the following broad directions of content advised by the MCFD and the postgraduate training coordinators following the training needs assessment:

Table 1: Replies to the question made to GP trainers 'What do you think are the main strengths of your work as a GP Trainer?'

Replies	Number
Up-to-date knowledge / continued training	10
Experience	7
Availability / accessibility / enthusiasm / commitment	5
Hands-on experience/exposure to varied cases/patients	4
Motivation of trainees	2
Empathy/support	1
Safe work/learn experience	1
Seeing GP training as a challenge	1
Absence of time constraints in private practice	1
Doctor patient relationship	1
Relationship of workplace on patient health	1
Self-directed adult learning	1
Focussed tutorials, case-based discussions (CBDs) and consultation observation tools (COTs)	1

- Peer-support meetings between GP trainers to share teaching experiences and discuss problems;
- Regular updates regarding guidelines & protocols (including local) based on the guidelines suggested in the STPFM curriculum;
- Update on community based resources.

The STC's plans for 2018 are to double the number of trainer CPD meetings from three to six to cater for newly-appointed GP trainers, with their obligation of attending at least one meeting a year remaining in force. The programme of each meeting will be decided and led by the participants themselves (based on their educational needs), with such programmes to be submitted to the postgraduate training coordinators in family medicine (Sammut and Abela, 2017).

Limitations of study method and suggestions for future research

One limitation of this study is that the needs of one cohort of trainers are used to determine the education of future trainers, with another limitation being that a number of issues were identified that could not be solved through the organisation of CPD meetings for GP trainers.

A bias may have been introduced from the non-response by disinterested GP trainers and trainees. While non-respondents ideally should be contacted to inquire as to the reason for their non-response, this was not possible due to the anonymity of the survey. However this effect of this bias was minimised by the high response rate (over 82% and 73% of GP trainers and trainees respectively). Recall biases were avoided by limiting the surveys to current GP trainees and trainers and to those trainees who had just completed training and their trainers.

Other possible biases which could not be limited or avoided include the under-reporting of educational needs that might not have been perceived by the participating trainers and trainees, and any difference in representation of education needs that may have resulted from trainees being placed predominantly in private practice or in the public sector.

Educational or training needs analysis is the initial stage in a cycle that contributes to a training and education strategy (Barbazette, 2006). After the CPD activities are determined, designed and delivered, further research would therefore be warranted so that the loop is closed with a re-evaluation to verify if the trainers' educational needs have been met and if the trainees feel that the quality of training provided by the trainers has improved.

CONCLUSION

The educational needs assessment carried out provided useful information that enabled the set up of regular CPD meetings for GP trainers within Malta's Specialist Training Programme in Family Medicine by the postgraduate training coordinators and the Malta College of Family Doctors with the support of the Primary Health Care Department. It is intended and augured that such regular trainers' meeting will continue on an ongoing basis, thus meeting the educational needs of GP trainers and ultimately benefiting the quality of training provided to GP trainees.

Dr Mario R SAMMUT
MD, DipHSc, MScH, MScPC&GP(Ulster), FMCFD, MRCGP[INT]
Senior General Practitioner & Postgraduate Training Coordinator in Family Medicine, Specialist Training Programme in Family Medicine, Primary Health Care Department, Mtarfa, Malta
Email: mrsammut@rocketmail.com

Dr Gunther ABELA
MD, MMCFD, MRCEM, FIMC.RCS(Ed), PG Cert Clin Lds (Open), LLCM
Senior General Practitioner & Postgraduate Training Coordinator in Family Medicine, Specialist Training Programme in Family Medicine, Primary Health Care Department, Mtarfa, Malta
Email: gunther-p.abela@gov.mt

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- GP trainers and GP trainees, 2013 – 2016 cohort, STPFM, Malta for their participation in the survey.

Table 2: Replies to the question made to GP trainers 'What do you think are the main weaknesses of your work as a GP Trainer?'

Replies	Number
Lack of time with trainee	10
No regular training for trainers / keeping up to date	3
Lack of collaboration with other trainers	2
Limited services provided by solo practice (e.g. gynae, children, minor surgery)	2
Difficult to plan	1
Workload	1
Organisation and explaining administrative procedures	1
Bias in managing certain cases	1
High expectation / hard judging of trainee	1
Lack experience in new specialities	1
Location of practice	1
Afternoon / evening clinic times	1
Lack of knowledge of hospital staff	1
Access to guidelines	1
Department continues to use GP trainers and GP trainees as cogs in a wheel	1

Table 3: Replies to the question made to GP trainers 'What factors constrain you in achieving what you aim for in your training work?'

Replies	Number
Lack of (protected) time	7
Not assigned with trainee (in health centres)	6
Busy workload	4
Financial assistance for resources to keep updated	2
Lack of teaching resource	1
Structure of training - 3 month stints are insufficient	1
Lack of meetings and discussion with other trainers	1
Lack of exposure to emergency care	1
Resistance to change in the trainee	1

Table 4: Replies to the three-part question made to GP trainers 'Would you like to do more? What would you like to do better? What do you think are your current development needs?'

Replies	Number
Further / develop my teaching / mentoring skills (e.g. better tutorials, feedback, role play)	9
Keep abreast (e.g. more time) with latest medical knowledge	4
Regular meetings with other GP trainers to discuss problems and share experiences	2
More time spent observing trainee (to give feedback)	2
Better liaison / exposure between the trainer and various specialties	2
Short courses / possibility to experience certain (new) specialties	2
More teaching resources: tutorial room, equipment and material	2
Optimise the time we work concurrently / better planning and keeping plan	2
Assessment: uniformity and update of tools	1
Have trainees full time for six month periods at least	1
More organized record keeping and auditing	1
Statistics	1
Real discipline in our system for all of us	1

Table 5: Replies to the question made to GP trainees 'What are the good things you have experienced in your posts in Family Medicine?'

Replies	Number
Trainer teaching / support / attention / discussion / enthusiasm	11
Network / teamwork / meeting / teaching / help from GPs / other colleagues	6
Support / feedback from training coordinators	4
Experience in broad areas from spending time in different specialities	4
Exposure to various cases / scenarios in primary care / health centres / community	3
Teaching given appropriate priority, time allocated for discussion of cases and tutorials	2
Attachment in the private GP sector	2
Growth and development as a family doctor	1
Good general overview in each subject	1
Concept of learning by doing	1
Working hours satisfactory for hands on training, sufficient time for study and activities	1
Leave not difficult to attain (priority especially during the period before applied knowledge tests [AKTs] and clinical skills assessments [CSAs])	1
Private setting - good support, focused tutoring, facility to run difficult cases by senior doctor	1
Polyclinic (health centre) - improving information technology (IT) capabilities, opportunities for hands on practice of suturing etc.	1
Organisation of half-day release course	1

Table 6: Replies to the question made to GP trainees 'What is the thing you like/liked least about your posts in Family Medicine?'

Replies	Number
Health centres: priority is almost exclusively service provision not training	4
Excessive workload in public sector negatively affected training / supervision	4
Not enough overlap with trainer's shift, little time for one-to-one education	3
Health centres: lack of continuity of care possibly impacted on personal development	2
Health centres: lack of balanced and flexible schedule	2
Work load not divided equally	2
Unavailable resources for examination / poor maintenance of premises	2
Exposure mostly to GP room and treatment - rarely did anti-coagulant clinic or diabetic clinic	1
Need more exposure to minor surgical skills	1
Never find time e.g. to check query on internet or to log patients	1
Frequent change of schedule - a lot of travelling by car!	1
Interference of professional autonomy by management e.g. inappropriate home visit	1
Trainees not respected as other senior colleagues	1

Table 7: Replies to the question made to GP trainees 'What should the management of the Health Centre (where you are/were placed) do differently?'

Replies	Number
Trainee assigned to trainer during working hours whenever possible	3
Allow some protected time so trainees can discuss issues with peers / trainer, carry out assessments, etc.	2
Prioritise training	2
Establish a system of continuity of care and better / electronic record keeping	2
Educate public / prevent patient abuse of staff and of the system	2
Distribute the work of trainees better - with trainees doing other sub-specialty clinics, prescription/ results and 'bereg' rather than just GP - treatment room	2
Structure repeat prescription clinic into a formal / chronic clinic where the patient is actually clinically re assessed at every visit	2
Provide adequate apparatus for appropriate assessment; maintenance and renovation of premises	2
Increase staffing levels	1
Issue clear guidelines	1
Support the clinical staff taking clinical decisions without interference from elements that are non-clinical	1
Team building/communication within multidisciplinary team	1
Development of clinical guidelines	1
Facilitate access to secondary care for investigations /urgent referrals	1
Promote and support expertise of members of primary care team	1
Better division of work, offloading work from solely done by trainees to more contribution from seniors	1
Improving flexibility in the work schedule	1
Healthcare services as an autonomous structure serving patient needs	1
Act about things going wrong and not be passive towards misbehaviour	1

Table 8: Replies to the question made to GP trainees 'What should the management of the Private General Practice (where you are/were placed) do differently?'

Replies	Number
NA / nil / no issues	6
Very happy / well placed / well managed	3
More communication with health centres and with Mater Dei Hospital (doctors' letters, investigations)	2
Not yet placed	2
Better group practice, more collaboration	1
Improving flexibility in the work schedule	1
More record keeping	1
More readily available apparatus that is taken for granted in the polyclinic (health centre) e.g. swabs	1

Table 9: Replies to the question made to GP trainees 'What should the GP Trainer do differently?'

Replies	Number
Nothing / no issues / very satisfied	7
Be evidence-based/up-to-date re guidelines/medical issues	3
Early preparation for the clinical skills assessment exam / provide feedback regarding consultations which is more "exam-oriented"	2
Organise tutorials more in line with our curriculum	1
Tutorials after work as might help recall interesting patients	1
Be less critical - a positive comment every now and then would have been helpful	1
Improved communication with the health centre management, the GP trainer and myself would have allowed for a better final balanced schedule	1
Joining me for a few hours at the health centre would be ideal	1
Act in interest of trainee	1
Keep to time schedules	1

Table 10: Replies to the question made during GP trainers' small group meetings 'What topics need to be tackled in GP Trainers' CPD Seminars?'

	Urgent	Less urgent
Important	• Regular peer-support meetings between GP trainers to share teaching experiences and discuss problems (e.g. every 6 months), not only formal but also social • Regular updates regarding guidelines & protocols (including local): which are recommended for exams? • More training regarding actual examination, more exam-oriented training and expectations • Training on assessment methods (for consistency between trainers): COT (consultation observation tool), CBD (case based discussion), CSA (clinical skills assessment), AKT (applied knowledge test). • Training on different teaching methods: standardisation, guidelines • Feedback from summative examination board regarding performance by trainees • Curriculum: (1) communicate content to trainers; (2) update • Updates on other/new available hospital sub-specialities: half-day 'hot topic' courses, exposure to such clinics including direct observation of procedural skills, etc. • Education re ePortfolio: tackling common issues for current trainers, training future trainers • How to tackle problematic trainees • Motivational skills • Mentoring and support	• Exam structure / material / guidelines used • Use of IT in GP Training to enhance teaching techniques (what is available, how to use it), e.g. apps, ePortfolio • How to get easy access to medical literature, reliable information and bank of resources (updates) • Helping trainees to 'use' their knowledge adequately • eConsultations, social media in practice • Audit in general practice
Less important	• Team-building skills • Practice management skills • Updates on community-based resource	• Research in general practice • Regular (yearly?) survey to mediate discussion regarding trainee-trainer problems

Table 11: **Topics tackled by GP trainers in CPD meetings held during 2017**

18th January 2017	31st May 2017	29th September 2017
• Update on asthma and community acquired pneumonia guidelines • Teaching experiences and problems • Update on community based resources	• Practical problems encountered by both the trainees and the trainers during the STPFM • Updates on the following clinical practice guidelines: antibiotic management of respiratory tract infections; skin infections. • The use of psychological strategies, especially cognitive behaviour therapy, in the management of stress, anxiety and depression • The core competencies of a GP and how to grade them • Update on community based resources • Using electronic medical records as a tool for teaching, clinical practice and research	• Dealing with the trainee in difficulty • Clinical case demonstrating the importance of problems commonly encountered in clinical practice • Teaching and training experiences of trainees • Updates on the following clinical practice guidelines: antibiotics; dyslipidaemia; hypertension; atrial fibrillation; congestive heart failure; stroke; chronic obstructive pulmonary disease, diabetes mellitus • Update on community based resources

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RESEARCH ARTICLE

A brief evaluation of care at a diabetic clinic in a primary health care centre

Dr Martha GRIMA, Dr Marilyn BALDACCHINO, Dr Jurgen ABELA

ABSTRACT

Introduction

Type 2 diabetes is one of the commonest chronic conditions in Malta posing a major health burden as a result of the complications that may arise. Evaluating patient management and comparing them to standard guidelines such as those set by the International Diabetes Federation (IDF) is an important step in improving care.

Objective

The study aimed to assess whether the practice at the diabetic clinic in Mosta Health Centre is in line with IDF targets for glycosylated haemoglobin (HbA1c), lipid profile and urinary albumin/creatinine ratio (ACR).

Method

All patients who attended the diabetic clinic in November and December 2016 were included. For each, data was collected for investigations done retrospectively from the Information Clinical Manager system over the year preceding their appointment. Data collected included age, gender, HbA1c values, lipid profile readings and ACR values. Adherence to guidelines was calculated and significant trends were reported.

Results

The study involved 515 patients, of which 55.5% were males and 44.5% females. The majority were of the older age group (48.3% being older than 70 years). Results for each investigation considered are as follows:

For HbA1c, 99.2% of patients had this test taken, with 89.1% having a second reading and 53.2% having a third reading over the year preceding the appointment. There was a statistical difference of HbA1c levels between males and females. Of all HbA1c values taken in this study 45.7% adhered to the IDF standards.

For ACR, 55% of the total had a measurement. Of these, 69.6% were within normal limits. Of the 30.4% abnormal results, only 5.7% had the test repeated twice over 4 months.

In this study 97.5% had at least a single lipid profile taken over the previous year. Of these, 88.4% had triglyceride levels <2.3 mmol/l, 28.3% had low-density lipoprotein (LDL) levels <2 mmol/l, and 86.7% had high-density lipoprotein (HDL) levels >1 mmol/l. Similar values were obtained for the 52.2% of patients who had two lipid profile readings and for the 17.3% of patients who had three readings over the year prior to appointment.

Conclusion

Most investigations were done as per IDF standards but there is still room for improvement. Adhering to guidelines is important and this may be improved by raising awareness of these guidelines among general practitioners. Development of local guidelines would be ideal.

Keywords

Diabetes mellitus, primary health care, guidelines

INTRODUCTION

Background

Type 2 diabetes is one of the most common chronic conditions in Malta, with one in every eight of Maltese adults suffering from the condition (Cuschieri, et al., 2016). This leads to a major public health burden as a result of the possible macrovascular and microvascular complications that may arise. These complications, which may be prevented by better diabetic control (O'Connor, et al., 2006) include heart disease, nephropathy and retinopathy. As emphasized by the International Diabetes Federation (IDF) Guidelines (IDF, 2012), cardiovascular disease is the major cause of morbidity and mortality in patients with type 2 diabetes. This further shows the importance of having a structured diabetic management clinic where the diabetic population is regularly monitored and followed up.

Mosta Health Centre is one of eight health centres which are the core of the primary health care service provided by the government in Malta (Primary Health Care Department, 2017). The health centre is open 24 hours a day, whilst the diabetes clinic within the health centre operates on weekdays between 08.00-13.00 hours, except on Wednesdays. Patients need to be referred to the clinic by a doctor, and attendance is by appointment. The clinic is led by a nurse and a doctor. On the day of the appointment, the patient's weight, blood pressure, haemoglucotest (HGT) and urinalysis are checked, and blood investigations taken prior to the appointment are reviewed. The patient's diabetic control, general well-being, treatment and any necessary changes are discussed, as well as any related health issues that patients might be concerned about. Annual referrals for diabetic retinopathy and neuropathy screening as well as assessment of the peripheral vascular system are also organised. A follow-up appointment is given and investigations are ordered, to be taken a few weeks prior to the next appointment.

A number of guidelines about monitoring and targets in type 2 diabetes have been published by different organisations. These include the International Diabetes Federation (IDF, 2012), the National Institute for Health and Clinical Excellence (NICE, 2015) and the American Diabetes Association (ADA, 2017). For the purpose of this evaluation, the IDF guidelines have been used.

Objective

Evaluating diabetes care is indeed a complex task. However, in line with the basic principles of chronic disease management, one important aspect of care is outcome assessment (Norris, et al., 2003). As stated previously, preventing complications (microvascular & macrovascular) is one important outcome of care. It can be stated that the biochemical monitoring of important parameters that have been shown to be directly related to such complications is another important indicator of quality of care.

Thus, the study aimed to assess whether the practice at the diabetic clinic in Mosta Health Centre is in line with the standards set by the International Diabetes Federation (IDF, 2012) for the following three biochemical parameters:

- glycosylated haemoglobin (HbA1c),
- lipid profile and
- urinary microalbuminuria (albumin/creatinine ratio [ACR])

METHOD

Data collection

This was a cross-sectional observational study. A data collection form was designed on Microsoft Excel to facilitate data collection. All patients who attended the diabetic clinic in November and December 2016 were included. Data was collected retrospectively by reviewing relevant investigations carried out, using the Information Clinical Manager (ICM) system, over the year preceding their appointment. Data collected included:

- Age and gender
- Values of HbA1c
- Values of ACR if available
- Values of total cholesterol, triglycerides, low-density lipoprotein (LDL) and high-density lipoprotein (HDL)

Data analysis

Data input and analysis was carried out using Microsoft Excel. Adherence to the guidelines (%), with respect to targets and frequency of estimation, was calculated. In addition, any clinically significant trends were reported. Further analyses were conducted using Statistical Package for the Social Sciences (SPSS) programme version 22.

Study approval

This evaluation was approved by the Department of Primary Health Care and by the Data Protection officer of the Department.

Standards

The standards were obtained from the IDF guideline *Global Guideline for Type 2 Diabetes* (IDF, 2012). These were chosen since, when compared with other guidelines, namely ADA (2017) and NICE (2015), they were thought to be more appropriate for an evaluation study. This guideline recommends the following:

Glycosylated haemoglobin (HbA1c):

- Measure HbA1c every 2 to 6 months depending on level, stability of blood glucose control and changes in therapy.
- Target of HbA1c less than 7%.

In this evaluation, HbA1c levels were reported as DCCT-aligned units (%) and not IFCC units (mmol/mmol) as the latter have only been recently introduced, and most GPs are more familiar with the DCCT-aligned units.

Urinary microalbuminuria

- Measure urinary albumin/creatinine ratio yearly.
- If ACR is raised (microalbuminuria ACR > 2.5 mg/mmol in men, > 3.5 mg/mmol in women), repeat ACR twice over the following 4 months. Microalbuminuria is confirmed if ACR is elevated in two out of three tests, in the absence of infection or overt proteinuria. If both repeat tests are not raised, check again annually.

Lipid profile

- Measure lipid profile yearly.
- Lipid targets are as follows:
  LDL cholesterol < 2.0 mmol/l (should be < 1.8 mmol/l in established cardiovascular disease)
  Triglyceride < 2.3 mmol/l
  HDL cholesterol > 1.0 mmol/l

RESULTS

Demographic details

During the period of this study, between November and December 2016, 515 patients had a registered appointment at the Mosta Health Centre diabetic clinic. Of these, 55.5% were males and 44.5% were females. The majority of the patients attending were of an older age group, with 48.3% being older than 70 years, closely followed by those aged between 60 and 69 years who represented 38.6% of the total number of patients. These results are summarised in Figure 1.

With respect to the individual biochemical parameters, the results were as follows.

A. HbA1c

99.2% of the total number of patients registered during the study period had at least one HbA1c reading over the previous year (mean value = 7.36% [95% CI: 7.24-7.47]), 89.1% had a second reading (mean 7.26% [95% CI: 7.15-7.38]), and 53.2% of the total 515 patients had a third HbA1c reading (mean 7.37 [95% CI: 7.21-7.53]). The least HbA1c value recorded was 3.2%, with the highest being 12.8% for all the readings. The overall mode of the total HbA1c values was 6.5%.

Comparing average HbA1c levels by gender, through the use of t-test, shows a statistically significant difference between males and females (P = 0.016) when the first HbA1c reading is taken into consideration, with males having better glycaemic control. There was a similar gender difference for the second and third HbA1c readings taken; however this difference was not statistically significant. Percentage values for each HbA1c reading according to gender are shown in Figure 2. 45.7% of all the HbA1c values available for the patients in this study adhered to the IDF standards which recommend HbA1c levels <7%.

Figure1: Age and sex distribution of patient population

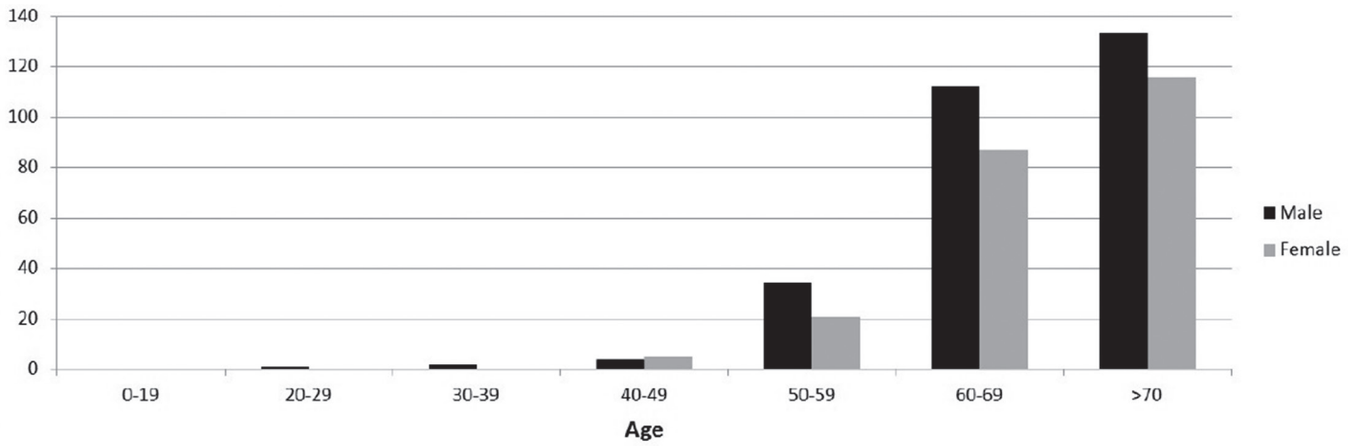
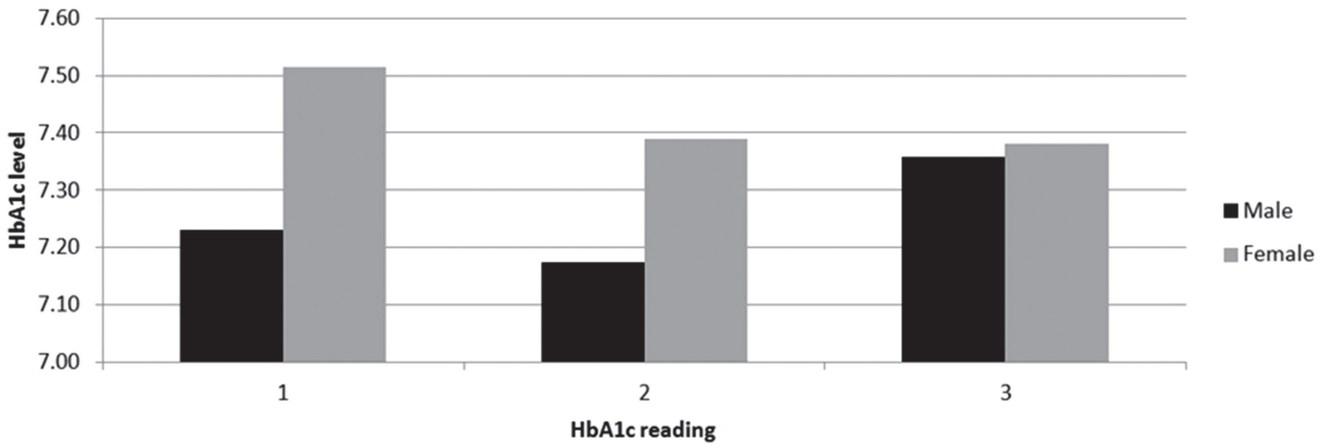


Figure 2: Average HBA1c levels by gender of patient population



B. Albumin creatinine ratio

55% of the total number of patients had at least a single ACR measurement over the previous year, with 45% having had no urine taken to detect microalbuminuria. Of the ACR readings available, 69.6% were within normal limits. Of the 30.4% abnormal ACR results, the majority had no urine taken to retest ACR (64.4%) while 26 patients (29.9%) had one ACR test repeated after the abnormal result. Only 5.7% of patients with an abnormal ACR had the test repeated twice over the following 4 months as recommended by IDF.

C. Lipid profile

97.5% of the total number of patients had at least a single lipid profile measurement over the previous year, 52.2% had two and 17.3% had three readings. Overall, when taking into consideration all the patients' lipid profile readings available, 86.7% had triglyceride levels <2.3, 30.6% had LDL levels <2 and 86.0% had HDL levels >1. On further analysis, when comparing the lipid profile results of those having at least a single, two or three readings, the percentage levels were very similar.

Of the 97.5% of patients who had at least one lipid profile reading over the previous year, 88.4% had triglyceride levels <2.3 (mean value = 1.46mmol/l [95% CI: 1.39-1.53]), 28.3% had LDL levels <2 (mean value = 3.04mmol/l [95% CI: 2.08-3.99]), and 86.7% had HDL levels >1 (mean value = 1.98mmol/l [95% CI: 1.02-2.95]).

Of those with two lipid profile readings over the year preceding the appointment, 86.2% had triglyceride levels <2.3 (mean value = 1.55mmol/l [95% CI: 1.44-1.66]), 30.9% had LDL levels <2 (mean value = 2.41mmol/l (95% CI: 2.32-2.50]), and 87% had HDL levels >1 (mean value = 1.39mmol/l [95% CI:1.34 -1.44]).

Of the 17.3% of patients who had three lipid profile readings, 85.4% had triglyceride levels <2.3 (mean value = 1.66mmol/l [95% CI: 1.43-1.89]), 32.6% had LDL levels <2 (mean value = 5.90mmol/l [95% CI: 0.94-12.75]), and 84.3% had HDL levels >1 (mean value = 1.37mmol/l [95% CI: 1.28-1.47]).

A summary of the overall results, compared with IDF standards, can be seen in Table 1.

DISCUSSION

Evaluation

In this evaluation, 44.5% of the study population was represented by females. One explanation for this may be that the prevalence of diabetes in Malta, as stated in the Report on the Performance of the Maltese Health System (Grech, et al., 2015), has been found to be significantly higher in males aged 15 years and older. On the other hand, the fact that the population sample was taken only over a one-month period might not be an accurate representation of the total population seen over one whole year.

The majority of the patients in this evaluation had at least one HbA1c reading over the preceding year, with only 0.8% having no readings. 89.1% of the patients had at least two HbA1c readings over a one year period, and therefore it can be concluded that this percentage adhered to the IDF recommendation that HbA1c levels

Table 1: Compaarison with IDF standards

IDF target		Achieved	Not Achieved
HbA1c	7%	45.7%	54.3%
	Measure every 2-6 months	89.1%	10.9%
Urinary ACR	Measure yearly	55.0%	45.0%
Lipid profile	Measure yearly	97.5%	2.5%
	LDL<2.0mmo1/1	30.6%	69.4%
	Triglycerde<2.3mmol/l	86.7%	13.3%
	HDL>1.0 mmo1/l	86.0%	14.0%

should be checked every 2-6 months depending on the control. Approximately 47% of the patients had satisfactory HbA1c levels (less than 7%) according to IDF recommendations (2012). This ranks well when one compares satisfactory HbA1c percentages quoted in other audits, such as the one done at a primary health care centre in Oman (Ahmed and Qurashi, 2014) with 35% having satisfactory HbA1c levels of less than 7%, or an audit done at the primary health care facilities in Dubai (Othman, et al., 2015) where 44.1% had satisfactory HbA1c levels of less than 7%, or the percentage of 41% stated in the American National Electronic Health Record (Gill and Foy Yu Ling, 2006).

This study's percentage shows an improvement when compared to data of a local study, which had shown that approximately 33% of the patients in the study had satisfactory HbA1c control (Cutajar, 2007). It should be noted however, that IDF standards at the time recommended HbA1c levels less than 6.5%. On further evaluation, 28% of the patients in this study had HbA1c levels less than 6.5%, as per previous standards, and this shows a deterioration when compared to the same study in 2007 which had shown that 38.2% of the patients at Mosta Health Centre had HbA1c within target (Cutajar, 2007). The results also show a difference in HbA1c control between genders, with females having poorer glycaemic control when compared to males. This finding has been documented previously (Cambra, et al., 2016).

Only 55% of the total number of patients had at least a single urine sample tested for microalbuminuria over the previous year, of which 30.4% were abnormal. The suboptimal percentage of patients being screened yearly for microalbuminuria is similar to studies carried out in other countries. Some studies, such as those done by Anabtawi and Mathew (2013), and Pilson, Snow and Varlett (2001) quote a variable compliance rate of 14-49% in the USA, while a study in the Netherlands to assess how frequent microalbuminuria screening was carried out yearly over three years (2007-2009) gave similar results to this study with percentages ranging from 45.2% to 57.4% (Hellemons, et al., 2013). This shows that there is much room for improvement in this aspect, as IDF standards (2012) recommend at least a yearly ACR measurement, in addition to serum creatinine and eGFR - estimated Glomerular Filtration Rate (which were not recorded in this evaluation).

There may be several reasons behind these low rates of compliance across different areas. The study carried out by Pilson, Snow and Vartlett (2001) aimed to find out the compliance rates with guidelines in diabetic care and also the reasons suggested by physicians behind the low compliance rates that resulted. They point out that some physicians raised questions regarding the utility of carrying out ACR testing in patients with end-stage renal disease while other physicians expressed their concern that assessing for microalbuminuria in patients who are already on ACE (angiotensin-converting-enzyme) - inhibitors would be inappropriate, given the fact that management of microalbuminuria would remain the same. However, it can be argued that despite the latter reason being very valid, optimizing blood pressure control in ACR positive patients remains a priority. This

study did not take into consideration the past history, drug history or blood pressure levels of patients and therefore we cannot give account for the above three factors. The guidelines do not only stress on yearly monitoring but also on further evaluation upon finding a high ACR result.

The result of this study that 64.4% of patients with positive ACR result had no further testing done is worrying. If one reviews audits abroad there is also a similar problem. In a study by Fifield, James and Ajmal-Ali (2005), 57% of patients were new cases of microalbuminuria and had no further monitoring. Chronic kidney disease is one of the major complications of diabetes, and is associated with an increased risk of morbidity and mortality (IDF, 2012). Early detection of developing kidney damage is useful in helping to minimize harm by appropriate interventions. These may include tighter blood pressure control, use of ACE-inhbitors or angiotensin II receptor blockers (ARBs), and referral to specialist clinics, such as the Chronic Kidney Disease Prevention Clinic (CKDPC) within the Primary Health Care Department. The latter is a nurse-led clinic, with the primary aim of education and monitoring of patients with established early kidney disease to help prevent deterioration in their condition (Primary Health Care Department, 2016).

Most of the patients in this evaluation had at least a single lipid profile measurement, with only 2.5% not adhering to the IDF recommendations of a yearly lipid profile test. The majority of readings (86.7%) showed triglyceride levels less than 2.3mmol/l, however only 30.6% had LDL levels less than 2mmol/l. Considering the results of Cutajar (2007), overall 10.9% of patients were found to have LDL values less than 2.51mmol/l. Of particular note is the change in IDF standards over the span of 10 years, with stricter control recommended for LDL levels as opposed to HbA1c levels. Lipid profile results of patients who had a single, two or three readings in the previous year were similar, and therefore this does not give much indication as to the reason why some patients had multiple readings taken. Of particular note is the fact that, of the patients with a second lipid profile reading, 37% had triglyceride levels > 2.3 when compared to 11.6% and 13% of patients with at least a single, and three readings respectively.

Strengths and limitations

The sample of 515 patients used in this study, who had been seen at the Mosta Health centre diabetic clinic over a period of two months, represent approximately one sixth of the total number of patients seen yearly. This is therefore quite a good representation of the population of patients that are seen at the clinic. A larger evaluation including patients visiting diabetic clinics in other health centres would have yielded results that can be said to be more representative of the whole population.

The number of patients who did not turn up for their diabetic clinic appointment was not taken into consideration in this evaluation. This can be a reason for some of the missing investigations, including the small percentage of patients who did not have a single HbA1c level taken during the year preceding the appointment, and it can be considered to be a limitation in this study.

The results of the albumin/creatinine ratio recorded were not standardised, with some of them having the albumin creatinine ratio, while others having microalbumin level in the urine. Also, the units used in Malta are mg/g for ACR and mg/l for microalbumin, as opposed to mg/mmol found in the IDF guidelines. The upper limit of normal for both males and females is taken to be 20mg/g for ACR and 20mg/l for microalbumin. In view of this, it was not possible to compare the results with each other, derive the range, mode and average of the values available and evaluate the results by gender according to IDF standards. In this study, only whether results were normal or abnormal was evaluated, and in the case of abnormal results it was checked whether the ACR was repeated twice over the following 4 months.

The patients' blood pressure, body mass index, waist circumference and medications were not included in the study data, and having this information would have made a more thorough evaluation possible.

CONCLUSION

Recommendations

All general practitioners who assess patients with diabetes should be made aware and reminded (through lectures, seminars and other teaching opportunities) of the latest guidelines in the management of this very common chronic condition. A chart with the most important recommended standards can be made available in the diabetic clinic, GP rooms or else as a soft copy on every computer, for easy access. Development of local guidelines about diabetes would be ideal, considering the high prevalence of this condition.

The diabetic clinic form available for filling in patient details, examination and investigation results may be modified to make it easier for GPs to avoid missing out important investigations and referrals, and to focus more on reaching target levels. A space should also be

made available to record any particular reasons why certain investigations may be felt to be unnecessary or are difficult to perform on certain patients. This will aid evaluation of practice in the future. Re-evaluation after adequate staff training may be undertaken, and a larger sample of patients can be studied.

Conclusion

The diabetic clinic at Mosta Health Centre helps to provide diabetic patients with a structured care approach. The aim of this study has been reached in assessing whether current practices at the diabetic clinic are in line with IDF standards. Most of the investigations are being done as specified by IDF standards in a good percentage of patients, especially when these results are compared to other audits done in primary health care. However more serious consideration should be given to improving diabetes control by focusing on reaching specific targets. Therefore, one should also aim to manage patients in a holistic manner, using a multidisciplinary team and a system which empowers patients to lead a healthy lifestyle and fight obesity.

Dr Martha GRIMA
MD
Department of Medicine, Mater Dei Hospital
Email: marthag203@gmail.com

Dr Marilyn BALDACCHINO
MD, MMCFD
Mosta Health Centre, Department of Primary Health Care

Dr Jurgen ABELA
MD,DCH (Lond.), MSc (Warw.), FMCFD, FLCM, FRCGP(UK)
Mosta Health Centre, Department of Primary Health Care

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RESEARCH ARTICLE

Evaluating an ethics summer school: an innovative approach in discussing and teaching ethics

Dr Jurgen ABELA, Prof. Pierre MALLIA and Ms Marika ABELA

ABSTRACT

Introduction

Ethical issues commonly arise in end of life (EoL) care. An ethics summer school, part of an Erasmus+ project, was held locally. It brought together professionals to discuss problematic areas and contribute towards the development of a curriculum on ethical issues.

Methodology

An end-of-summer school questionnaire was distributed to all participants. The questions in the questionnaire were based on a literature review carried out prior to the summer school. Mixed methodology was used, applying content analysis to describe the qualitative aspect of the study.

Results

All 44 participants filled in their questionnaire. 86.4% felt that the summer school reached their expectations and 90% declared that their intended objectives were reached. The most common ethically challenging issue in practice was dealing with artificial nutrition and hydration (ANH) – 22% of responses - whilst the most requested topic to be included in a future curriculum on ethical issues was communication, followed by patient autonomy. 64% of respondents stated that their personal beliefs influence their decision making in EoL care.

Conclusion

This was the first ever ethics summer school hosted locally. It is an innovative way of dealing with ethical issues in EoL care. Participants received the summer school very favourably. Areas that would be included in the eventual development of an ethics curriculum were identified. The results will also be used to inform future summer schools.

Key words

Clinical ethics; terminal care; palliative care

INTRODUCTION & BACKGROUND

It is a known fact that ethical issues, especially at the End of Life (EoL) prove to be challenging to professionals. Abela and Mallia (2016a) reported that physicians, for example, are concerned with the lack of legislation on EoL which covers the moral arena of futile, extraordinary and disproportionate treatment and indeed pain relief. Whilst it is accepted that death can result indirectly from pain relief, the latter may not be optimally given to patients for fear of relatives accusing professionals that they killed the patient (Berger and Vadivelu, 2013). This occurs despite increasing evidence supporting the use of morphine (Sykes, 2007). Unfortunately, studies still show that many dying patients get little pain relief (Sprinks, 2016). Central to this problem of under-treatment of pain is the scant attention given to pain control in the medical school curricula and the lack of its assessment (Thomson, 2010).

Another challenging concept in EoL care is artificial nutrition and hydration (ANH). One study showed that when ANH is removed in imminently dying patients, their symptoms actually improved (Tsiompanou, Lucas and Stroud, 2013). Studies show that recognising that death is imminent is important for planning and providing adequate care (Abashi et al., 2011; Bronnert, 2014; Gibbons et al., 2009). Further to this, palliative care input has been shown to result in better satisfaction, symptom control, reduced emergency admissions, and shorter lengths of stay in hospital (Emery, 2013). Cultural diversity at the end of life, conversely, is becoming increasingly important and care should recognise, access, and address the psychological, social, spiritual and religious issues, as well as cultural taboos realising that different cultures may require different approaches

(Searight and Gafford, 2005). Moreover it has been shown that spiritual belief may affect the outcome of bereavement (Walsh et al., 2002) and that professionals ought to recognise this need. Providing a structured training for doctors in palliative care and ethical issues is said to be the key to the new era of a value-based EoL care (Frist and Presley, 2015; Abela and Mallia, 2016b; Conn and Berry, 2010).

Given all of the above, the Bioethics Research Project – Malta, in collaboration with partners from Ireland and Italy, is running a three year Erasmus+ project on 'Harmonisation and dissemination of best practice, educating and alleviating concerns of health care professionals (HCPs) on the proper practice of end of life' (Mallia, Abela and Galea, 2016). This will hopefully be accomplished through a variety of initiatives within the project, amongst which one finds the summer schools. This article describes the outcomes of the first summer school on EoL issues which took place in the summer of 2016. The objectives of the summer school were to:

- Bring together health care professionals to discuss EoL issues;
- Identify the problematic areas in dealing with end of life, especially why accepted practices do not occur;
- Act as a source for the eventual collation of a curriculum on EoL.

METHODOLOGY

Given the intended objectives of the summer school, it was deemed best that an end-of-summer school evaluation was the most suitable method of assessment. The findings of the evaluation would eventually support the development of a curriculum on ethical EoL issues and at the same time improve upon the learning experience of participants in future summer schools.

The summer school was a week-long programme, in which different speakers facilitated discussion and workshops on a variety of topics and areas related to EoL care. The topics were wide ranging, from ethical thinking and informed consent to practical issues arising in paediatric EoL care, palliative sedation and home care.

Based on the literature review carried out prior to the start of the summer school, key themes were identified and a set of questions was compiled together in an appropriately designed questionnaire. Being an innovative approach, the literature search did not provide any similar questionnaires which could help in the collation of questions. The questions were separately reviewed by the three authors and fell into five domains, namely: demographic details, legal and moral issues, personal values and working in a multi-disciplinary team, death and dying and the running of the summer school.

At the end of the summer school, all the participants were given a self-administered questionnaire. As no sensitive personal data was gathered during this study, no ethical approval was needed, while authorization was obtained from the EndCare project coordinators to use the anonymous data for this study.

The majority of the questions presented were of a quantitative nature using Likert-type scales. Excel 2010 and Statistical Package for the Social Sciences (SPSS) 22 were used to analyse this form of data. Participants were also asked to elaborate on their choices as well as give their opinion in support to some of their answers. Content analysis was used to code and quantify these open-ended replies.

RESULTS

Demographics

All 44 participants in the summer school accepted to take part in the survey. The participants came from three countries, namely Malta, Ireland and Italy, these being the three countries involved in the project. The large majority of the participants were Maltese due to the fact that this summer school was held in Malta. Seven of the participants came from overseas – three from Italy and four from Ireland. There was a mixture of HCPs ranging from consultant physicians to family doctors, nurses and paramedical professionals.

In spite of the limited number, this cohort allowed for a wide-ranging sampling of ideas due to the diversity in the professional backgrounds of the participants as well as the inclusion of a healthy number of undergraduates. This inclusive aspect of the study was also reflected in the age distribution (Table 1).

Ethical Issues

Most of the summer school participants appreciated this mix and commented positively about it. One particular respondent said that:

…it was a unique forum with the possibility of sharing ideas with local and foreign professionals who work in the same area.

Another respondent, whilst commenting positively on this aspect, reiterated that there should have been more opportunities to share and compare among different countries.

Table 1: Age distribution and professional background of participants

Age	Frequency	Precentage		Professional	Frequency	Percentage
<29 years	21	47.7		Academic	8	18.2
30-39 years	3	6.8		Community	7	15.9
40-49 years	9	20.5		Hospital	5	34.1
50-59 years	9	20.5		Home for elderly	15	11.4
>60 years	2	4.5		Hospice	2	4.5
Total	44	100		Other	7	15.9
				Total	44	100

On the less positive side, a few respondents (9%) commented that the audience was not targeted enough, or at least that more provision should have been made for the different professions. They felt that there was too much emphasis on the medical:

… more focus on ethics rather than palliative care… would have been better.

The second section of the questionnaire gathered data on previous knowledge. 70% of the participants reported that they had had some form of previous training in EoL care. 39% of these received training during their undergraduate studies and 27% during postgraduate studies. The remaining 34% attended short courses or seminars on the subject.

When asked about what concerns them more between moral and legal issues, 47.7% of the respondents chose legal and 52.3% chose moral issues. Those who chose legal issues gave fear of medico-legal litigation due to lack of adequate legal frameworks as their major concern, whereas those who chose moral issues were more afraid of conflict between their personal moral values, the law and the patient/relation values and wishes.

This issue of personal values was further investigated in the next section. Several moral or ethical issues that could present themselves in an EoL context were presented in a Likert-type question. The data was described in terms of frequency of occurrence and of relevance to the respondents.

Eighty per cent of the respondents reported that they have never had to refuse a patient's request in an EoL context due to personal values, with the remaining 20% only having to do so rarely. Despite this, 64% reported that personal values do influence their decision making in EoL care. Well over half of the respondents have experienced conflict between personal values and the views of relatives of patients with 66% of the respondents saying that it happens quite frequently or occasionally.

Moral or ethical disagreement between professionals seems to be a non-issue for 73% of the respondents, with the remaining 27% only having to face disagreement on rare occasions. On the other hand, 63% of the respondents seem to have an issue with the moral guidance provided at their place of work. Of these, 18% say that they often disagree with these guidelines whilst another 25% reported as having occasional conflicts with this moral guidance.

The respondents were also asked to indicate the frequency by which they encounter or have to deal with specific EoL care ethical issues at their place of work. The most frequently encountered issues in descending order were artificial nutrition and hydration (ANH); discussing EoL and death; diagnosing death and discontinuing life sustaining therapies. Even when one excludes respondents who answered *rarely* or *not applicable,* the same issues remain in the forefront, with discussing EoL and death at 21.2%, ANH at 17.4%, diagnosing death at 14.4% and discontinuing life sustaining therapies at 12.8%.

Respondents were then asked to identify what they feel as the single most challenging issue in EoL care. At 22%, the most quoted issue was ANH. According to the participants this issue was dealt with very well during the summer school. The other medical related issues mentioned were pain relief and palliative sedation (15%), palliative care (12%), withdrawing and withholding treatment (6%) and suctioning (3%). The remaining

Figure 1 : Participant rating of summer school(%)

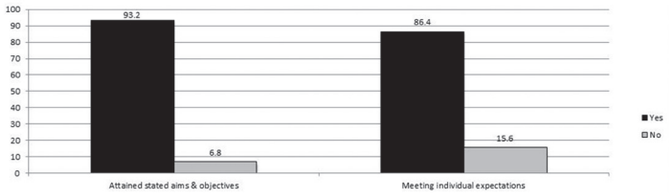
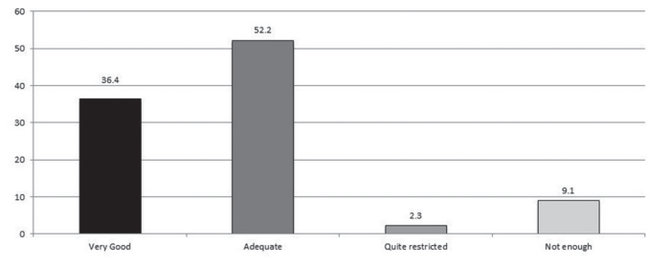


Figure 2 : Range of topics in the summer school(%)



responses (42%) referred to a variety of ethical and moral issues. 15% mentioned communication with patients and relatives and 6% mentioned refusal of treatment by patient and recognising and acknowledging terminal situations in non-cancer patients. Other issues mentioned included spirituality, discharging patients at EoL, lack of patient follow-up, do not resuscitate orders and extraordinary measures at EoL.

Since one of the main objectives of the project was to devise a curriculum on EoL care, respondents were asked to identify two aspects of EoL care which in their opinion should be included in the said curriculum. A list of 22 topics was identified. Interestingly enough, the most frequently mentioned topic was communication. Then, in order of frequency, there was patient autonomy and dignity, palliative sedation and pain relief, futile treatment and extraordinary care, legal issues, advance directives, palliative care and euthanasia. The rest of the topics listed included clinical guidelines on EoL, bereavement, breathing, ethical and moral issues including doctrine of double effect, patient centred approach, a multidisciplinary approach to EoL care, ANH issues, ethics in paediatric EoL care, cultural differences, spirituality and learning methods.

Some of these issues were dealt with during the summer school. However, respondents asked for more input especially on legal and ethical frameworks, futile treatment and extraordinary measures, spirituality, religious differences especially in Islam, pain management in difficult situations, home care and dealing with requests for collusion.

Respondents mentioned three other topics which in their opinion should have been dealt with during the summer school namely, patients' advocacy, withdrawal of artificial ventilation and dying a good death. 9% of the respondents also asked for more clinical scenarios and case studies.

88% of the respondents also stated that the ethical issues raised during the training will definitely influence their future decisions in EoL care. Some of the most interesting comments included:

- More awareness of patients' comfort:
  In acute hospitals a lot of patients die with an NG tube inserted even though this is not comfortable.
  …recognising that time spent with client is very valuable in care-planning.
- More understanding towards relatives:
  I will involve relatives in every step of the way and help them keep up-to-date with future plans of palliative care so that they know what to expect.
- Awareness of patients' advocacy:
  I am more aware of patients that cannot voice their opinion.

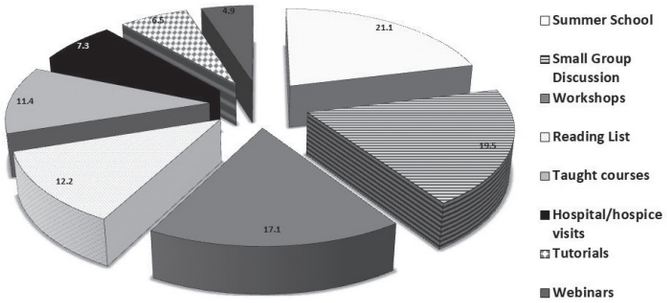
Running of the summer school

Eighty-six point four per cent of the respondents said that the summer school had reached their expectations whilst more than 90% declared that the intended objectives of the summer school had been attained (Figure 1).

The respondents' reaction to the range of topics presented was also favourable, with 36.4% saying it was very good and 52.3% deeming it adequate (Figure 2). They were asked to identify three lectures which they found particularly relevant for them. The aim of the question was to evaluate whether the range of topics presented during the summer school appealed to all the participants considering the eclectic range of professionals participating in the training. It was interesting to note that all the lectures received a mention. For the purpose of the study, the lectures were grouped into three broad themes. Lectures on legal issues received 22% of mentions, lectures on moral and ethical issues 34% and lectures on medical issues 43%.

The final consideration in this section was for the preferred resources by which participants could improve their knowledge of ethical issues. They were allowed to choose more than one option (Figure 3). As can be seen, the concept of a summer school topped the list of most popular resources. Other useful resources included

Figure 3 : Useful resources to addressethical Eol Issues (%)



workshops and small group discussions. It is interesting to note that in the further comments section at the end of the questionnaire, some of the participants pointed out that smaller group discussions and workshops should be incorporated in future summer schools. These ideas are represented in Figure 3. To be noted also is the fact that 12.2% of the respondents asked for a reading list.

DISCUSSION

This was the first summer school in a series of three. It was therefore expected that the feedback would be used as a learning curve and develop accordingly the subsequent summer schools. The series of talks were therefore more didactic than is to be planned in the future; it was still felt important that talks on basic legal, ethical, medical and social issues are discussed in order to help HCPs reflect on their needs. The fact that only 9% commented that the audience was not targeted enough is in fact a welcome result as sometimes, people coming from different areas might present different kinds of problems.

Curriculum development is a process. It involves defining goals, planning, implementing, reviewing and refining (McEvoy, 1998). It has been described as a peculiar animal involving a lively understanding of the underlying educational philosophy. Refining the curriculum means refining the methods and the content according to needs. In this regard, the summer school successfully acted as an important source for the content of a future curriculum.

Forty-seven point seven per cent of respondents said that legal issues concern them most and 52.3 % said that moral issues concern them more. This is indeed in line with the findings from other studies. In fact in a study by Abela and Mallia (2016a), 24.7% said that they were indeed sceptical of giving enough analgesia due to fear of litigation or lack of a legal framework.

It is interesting and important to note as well that the most frequently encountered EoL issues were ANH (most frequently cited issue), discussing EoL and indeed diagnosing the imminence of death. These findings are in line with other studies (Gibbons et al., 2009). These are important issues as many may be kept on ANH, for example, out of fear of litigation or lack of moral competency, leading to undue discomfort of the dying patient (Lofmark and Niltsun, 2002). Again lack of discussion means that people may not be prepared for the eventual death. It was refreshing to note that participants stated that these issues were dealt with very well in the summer school.

Interestingly, ANH features as the most commonly met challenging issue, but communication was the most cited topic to be included in a future curriculum. This seems rather paradoxical, but might be understood in the light that despite being challenged frequently on ANH issues, professionals feel more empowered to effectively deal with this area than tackling difficult aspects of communication in EoL. (Conn and Berry, 2010). It is also a reflection of the importance that professionals give to communication and patient autonomy. Certainly, this is an area which needs further research to better understand such views.

In planning the second summer school to take place in L'Aquila, Italy during the summer of 2017 these results will be taken into consideration. One ought not to be overly encouraged by the fact that in general 86.4% felt that the summer school reached their expectations as one understands that a curriculum is a living object and one hopes to tweak and focus more in the subsequent summer schools in order to publish a final curriculum for the harmonization of EoL care. Important points have already been teased out from this first experience. For example, although initially the authors thought that a reading list in a curriculum would curtail free thought, this was actually requested by the participants. The curriculum is a contextual tool for improving professional standards. Implementing frameworks such as the UK Gold Standards Framework enabled processes of communication which was associated with high quality palliative care (Thomas, 2017). We can also learn from experiences which have been deemed to have failed due to erroneous implementation, such as the Liverpool Care Pathway (Saunders, 2013). In fact the latter pathway failed due to improper training and implementation of an otherwise good pathway.

CONCLUSION

Ethical issues are commonly encountered at EoL. A summer school was organised as part of an ongoing Erasmus+ project in EoL care. The evaluation of the summer school was an innovative manner adopted to inform the future development of a curriculum. 70% of participants had some form of training in palliative care. The most commonly encountered challenging issues included ANH, diagnosing dying and communication at EoL. In addition, legal and moral issues at EoL concerned participants in nearly equal proportions, 47.7% and 52.3% respectively. The most commonly cited topics to be included in a future curriculum included communication and patient autonomy. Overall, most participants (86.4%) were happy with the set-up of the summer school with a substantial minority highlighting the need of more interactive sessions. These comments will be used to inform the planning of future summer schools as well as the collation of an eventual curriculum on EoL ethical issues.

Dr Jurgen ABELA
MD, DCH(Lond.), MSc, FMCFD, FLCM, FRCGP(UK)
Hospice Malta
Department of Primary Health Care, Malta
Email: jurgen.abela@um.edu.mt

Prof Pierre MALLIA
MD PhD CBiol MPhil MA(Law) DipICGP MMCFD MRCP FRCGP
Bioethics Research Programme, Malta
Professor of Family Medicine, Bioethics & Patients' Rgihts
Chairperson, National Health Ethics Committee, Dept. of Health
Chairperson, Bioethics Consultative Committee, Ministry of Health
Coordinator, Bioethics Research Programme, Univ. of Malta
Malta Representative, Council of Europe DH-BiO
President, Malta College of Family Doctors

Ms Marika ABELA
B.Ed (Hons.), M.Ed, LLCM
Secretariat for Catholic Education, Malta

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RESEARCH ARTICLE

Patient attendance at a primary health care centre in Malta: a cross-sectional observational study

Dr Marilyn BALDACCHINO, Dr Jurgen ABELA, Dr Elanja Marie REIFF, Dr Julian GRIMA, Dr Lorna ATTARD, Dr Robert ELLUL

ABSTRACT

Introduction

The aim of the study was to describe the reason for consultation of patients attending the General Practitioner (GP) service at a major local health centre and also to get a clinical profile of the patients making use of such health service. This study is based in the publicly-funded primary health system in Malta and focuses on Mosta Health Centre.

Methodology

This was a cross-sectional observational study carried out in January 2017. Only the patients seen in the GP clinics were included. All six authors are practicing GPs. All the patients that the authors encountered in the GP clinics were included in the study. The fact that all authors work in different shifts and days allowed for a broad and random inclusion of patients. Patients attending out-of-hours and in weekends were also included. A pilot one-week period of data collection was carried out. Thereafter, all six authors had an Excel spreadsheet uploaded on the work computer system in the GP consulting rooms, so that patient data was inputted in real-time at the end of each consultation. Data was inputted in Excel 2010 and analysed using the Statistical Package for the Social Sciences (SPSS) 22.

Results

A total of 820 patients were included in the study. 51.8% of patients were females, whilst 74.8% of patients were born in Malta. 50.2% of patients raised more than one issue during a single consultation, whilst the most common co-morbidity noted was hypertension. The most common reasons for consultation were related to the respiratory and musculoskeletal systems. Various significant associations were observed, most importantly being between the time of attendance and number of issues brought up during a consultation; between being born in Malta and number of issues brought up during a consultation; and between age and number of issues brought up during a single consultation.

Conclusion

This study involved 820 patients attending Mosta Health Centre over a one-month period during winter 2017. During a single episode of care (visit), Maltese nationals consult for a greater number of issues. In addition, they have a greater number of co-morbidities than non-Maltese nationals. People attending between 08.00 and 17.00 hours tend to present with a greater number of issues for management. Suggestions for service development have been put forward in the discussion. Ideally, such studies should be conducted independently in different health centres given the notable differences in the catchment areas, and during different months of the year.

Key Words

Primary health care; episodes of care; co-morbidity

INTRODUCTION

Family medicine can be defined as the medical specialty which, irrespective of the health care setting in which it functions, includes the six core competencies of primary care management, person-centred approach, specific problem solving skills, community orientation, comprehensive approach and holistic care (Evans, et al., 2002). At present in Malta, primary health care is delivered via the publicly-funded health service and a parallel running private health system. There is no compulsory doctor-patient registration so far.

The publicly funded primary health system is free at the point-of-delivery and delivered through eight

health centres in Malta and one health centre in Gozo. The three main health centres are located in Floriana, Mosta and Paola and are open 24 hours a day. The satellite health centres consist of Birkirkara, Rabat, Gżira, Qormi and Cospicua. All health centres in Malta provide a routine general practitioner (GP) service, as well as a comprehensive list of ancillary services which can be viewed on the website of the Primary Health Care Department (Primary Health Care Department, 2017). This study focuses on the publicly funded health system and in particular, Mosta Health Centre.

The reason for consultation of patients attending the national primary health system has been previously studied (Cuschieri and Sammut, 2013; Agius-Muscat and Carabott, 1989; Soler, et al., 2011). However, the authors felt that a more in-depth and comprehensive study was needed, where a greater number of patients and doctors are included, in particular to better identify the profile of patients using the health service in addition to the reason for consultation.

METHODOLOGY

The study was carried out at Mosta Health Centre during the month of January 2017. Only the patients seen in the GP clinics were included. Thus, patients seen in special clinics (including diabetic, prescription and anticoagulant clinic), in the treatment room (where emergency cases are dealt with) and patients seen during house visits were excluded. All authors are practicing GPs. The patients that the authors encountered in the GP clinics were thus included. The fact that all authors work in different shifts and days allowed for a broad and random inclusion of patients. Patients attending out-of-hours and in weekends were also included.

Prior to the commencement of the data collection, a pilot one-week period of data collection was carried out. This was needed to address any unidentified problems with the study process and data collection. Thereafter, all six authors had an Excel spreadsheet uploaded on the work computer system in the GP consulting rooms, so that patient data was inputted in real-time at the end of each consultation. In this manner, recall bias was minimized. In addition, the data collection was completely paperless. The literature search done prior to the start of the study identified the International Classification of Primary Care – 2nd edition (ICPC-2) as the most appropriate and popular classification of patient encounters in general practice (WONCA International Classification Committee, 1998). In addition, after due internal discussion, the authors identified a set of patient characteristics that were postulated to be relevant to the aims of the study. Finally, the list of co-morbidities included in the study was drafted from the experience of the authors who have been working in general practice for a number of years.

The study was approved by the Department of Primary Health Care and also by the Data Protection Officer of the Department. Although ethical approval was strictly-speaking not needed, this was just the same sought and obtained from the University of Malta Research Ethics Committee.

Data was inputted in Excel 2010 and analysed using the Statistical Package for the Social Sciences (SPSS) 22. Non-parametric tests (including chi-squared test) were used to analyse the data. In this study, $p<0.05$ is taken as the level for statistical significance and $p<0.001$ is taken as the level for statistical high significance.

RESULTS

Basic Demographic details

Over the one month period of data collection, 820 patient encounters were recorded. Of these patients, 51.8% were females and 48.2% were males. The age/sex distribution of the patients is reproduced in Figure 1. The numbers of patients attending from different localities are listed in Table 1, coupled with the respective population of the locality (National Statistics Office Malta, 2015).

Apart from the above mentioned information, the time of attendance of patients was also recorded. This was divided into two main classes: 08.00-17.00 hours and 17.00-08.00 hours. Out of the 820 patients recorded, 601 (73.3%) attended between 08.00 and 17.00 hours and 219 (26.7%) attended between 17.00 and 08.00 hours. Due to the particular catchment area of Mosta health centre, where a large number of foreign patients reside, the place of birth of the patients was also recorded. 613 (74.8%) were born in Malta, whilst 207 (25.2%) were born abroad.

For each patient encounter, the number of episodes of care (i.e. issues/problems raised in the consultation) was recorded and this is represented in Figure 2. A total of 1050 complaints were put forward by the 820 patients sampled. Seven episodes of care were unfortunately lost in the data collection process.

The presence of documented co-morbidities in the patients surveyed (as noted in the file, the Schedule V system of free drugs for certain diseases and/or discharge letters) was recorded, and these are listed in Figures 3

Figure 1 : Age/sex distribution of patient population

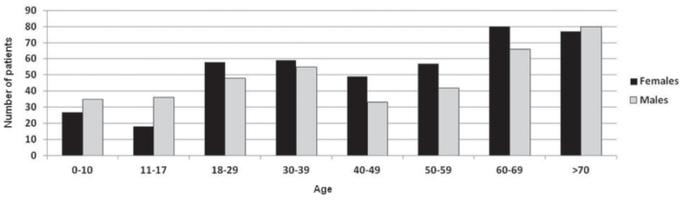
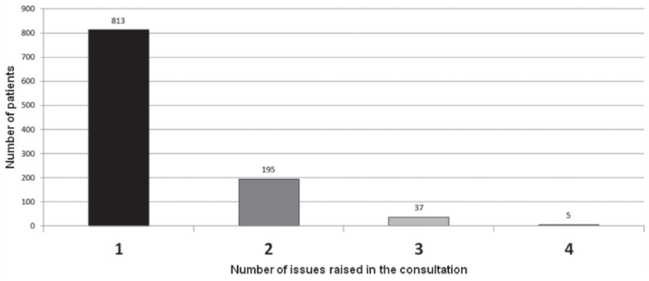


Figure 2: Episodes of care (issues rised in a consultation)



and 4. The main reasons for consultation are summarised in Figure 5. Such list is derived from ICPC-2 as stated in the methodology section. As can be seen the most common areas of complaint are related to the respiratory and musculoskeletal systems.

In-Depth Analysis

The data was further analysed to elicit any statistically significant associations. The relevant associations observed include:

- A highly significant correlation ($p<0.001$) between place of birth and age of patients, with people not born in Malta being younger in age.
- A highly significant correlation ($p<0.001$) between residing in St Paul's Bay and not being born in Malta.
- A highly significant correlation between increasing age and number of co-morbidities ($p<0.001$).
- A highly significant correlation ($p<0.001$) between time of consultation and number of co-morbidities. This means that people with increasing number of co-morbidities tend to consult mostly between 08.00 and 17.00 hours.
- A highly significant correlation ($p<0.001$) between number of co-morbidities and issues brought up during the consultation.
- A significant correlation ($p=0.011$) between age and number of issues brought up during a consultation, with elderly patients bringing up more issues during a consultation.
- A significant correlation ($p=0.03$) between being born in Malta and the number of issues brought up during the consultation. This means that a Maltese-born patient tends to bring up more issues per given consultation.
- A significant correlation ($p=0.031$) between increasing number of issues per consultation and the time of consultation, with consultations during 08.00-17.00 hours being more loaded with issues.

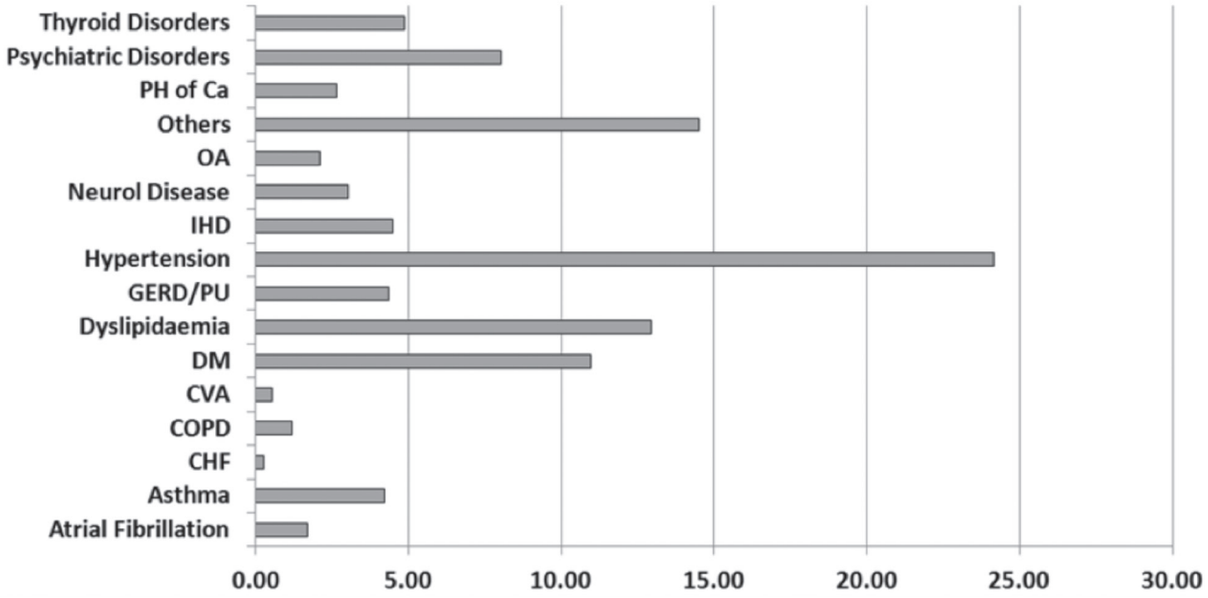
DISCUSSION

Mosta health centre is one of the busiest primary care centres in Malta, and the hub for the northern area of the island. It is thus not surprising that the amount of patients reviewed on a daily basis is high and that although 820 patients over one month might seem to be a substantial number, according to statistics provided by the Primary Health Department, it is roughly 20.5 % of the patients attending to see the GP.

The results clearly show that the majority of patients attending were females, though this is not consistent throughout all age groups (Figure 1). However, this gender difference in attendance reflects a known fact supported by the literature (Hunt et al, 2011). This refers to the fact that women, on average, consult their general practitioner more than men, especially in the peak reproductive years. In this study, 55% of the patients aged between 18 and 49 years (i.e. the reproductive years) were females. In view of this gender difference in health seeking behaviour, it can be argued that GPs should be more proactive during consultations with male patients, therefore taking the opportunity to address certain issues, including health promotion and disease prevention.

Most of the patients visiting the clinic were residents of Mosta (34.1%), followed closely by St Paul's Bay (31.1%). Further to this, when one considers the population of the areas involved (vide Table 1), the rate of usage of the GP service is roughly proportional to the population of the localities listed. In addition, most of the foreign patients consulting were also found to be more likely to be living in St Paul's Bay and to be of a younger age group than those born in Malta. It can be argued that these patients represent a population of young people who are residing in Malta possibly mainly for occupational reasons. Indeed, the significant association observed between being born in Malta and the number of issues brought up during a consultation might imply that these younger foreign nationals might have different health beliefs and would be more interested in a 'fix and

Figure 3: Comorbidities(percentage)



Key:PH of Ca:past history of cancer; **OA**: osteoarthritis; **GERD/PU**:gastro-esophageal reflux/pepticulcer; **DM**: diabetes mellitus; **CVA**: past history of stroke; **COPD**: chronic obstructive pulmonary disease; **CHF**: congestive heart failure; **Neurol Disease**: neurological disease e.g. Parkinson"s Disease; **IHD**: Ischaemic Heart Disease.

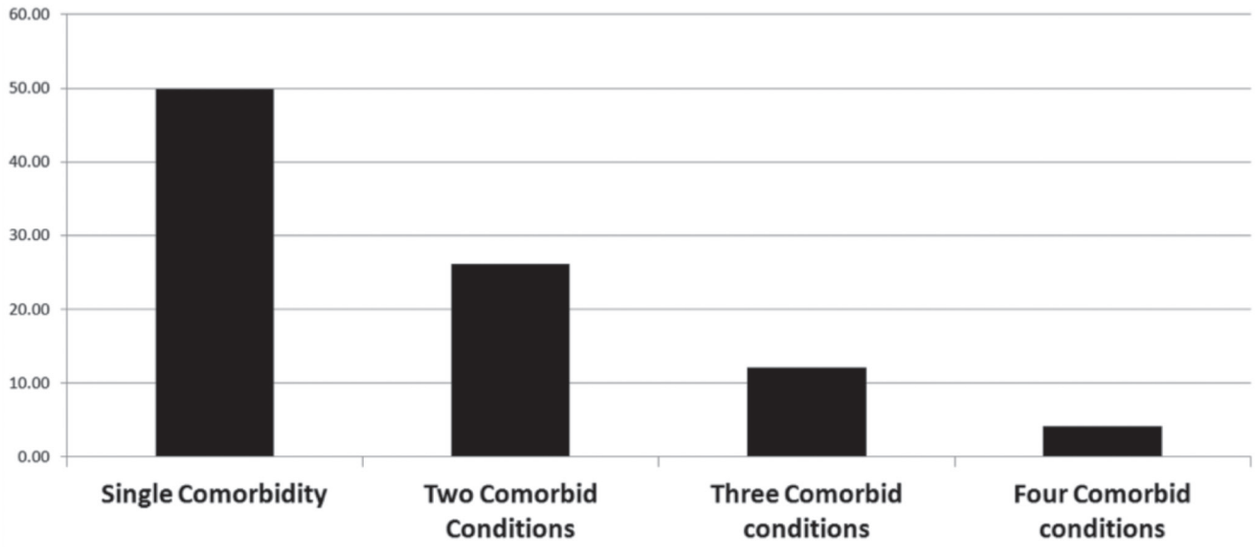
forget' type of service for their particular ailment and possibly less concerned with long term health care and prevention (Madden, et al., 2014). Alternatively it may be argued that this subset of foreign nationals might be 'healthier' than the general Maltese population. Certainly this is an area which needs to be studied further.

Not surprisingly, increasing age was found to be associated with a greater number of co-morbidities and issues brought up during the consultation, which indicates a higher number of health problems requiring attention in older patients. The highest percentage of the total number of patients consulting were those older than 70 years, followed closely by those aged 60-69 years, as can be visually appreciated in Figure 1. The global phenomenon of population ageing is becoming more and more evident (Global Health and Aging, 2011), and the burden that an increase in age-related chronic conditions (with associated social problems) will have on the health system should be taken into consideration by policy-makers. Patterns of health care investment will most likely be influenced in the wake of this reality, with a particular emphasis on long-term care, community care and support, to ensure the well-being of this older generation (Global Health and Aging, 2011).

Patient co-morbidities were also recorded in this study, and half of the total number of patients attending had a single co-morbidity (Figure 4), with the commonest being hypertension. The commonest co-morbidities (hypertension, dyslipidaemia, diabetes mellitus) found in this study (see Figure 3) are a strong reminder of the obesity epidemic, for which Malta has been found to have the highest prevalence in Europe (Mendis, 2014). A local study published in 2016 showed that 69.75% of the Maltese population are either overweight or obese (Cuschieri, et al., 2016). This is a reminder of the important roles that general practitioners have, both in prevention of obesity as well as in harm reduction, by effectively managing chronic conditions resulting from obesity. In addition, the recent empowerment of GPs to be able to apply for free drugs for hypertension and dyslipidaemia on the national Schedule V service is indeed an important step in the right direction. However, consistent with this line of thought, GPs should also be empowered to apply for Schedule V free drugs for diabetes.

The majority (73.3%) of the patients sampled in this study attended Mosta Health Centre between 08.00-17.00 hours. However, even when this is accounted for, patients attending during this time were (highly significantly) more likely to bring up multiple issues during the consultation and have more co-morbidities. This shows that most of those attending out-of-hours were more likely to be consulting about a single (possibly acute) problem requiring immediate attention. Certainly,

Figure 4: Comorbidities in the studied population (percentage)



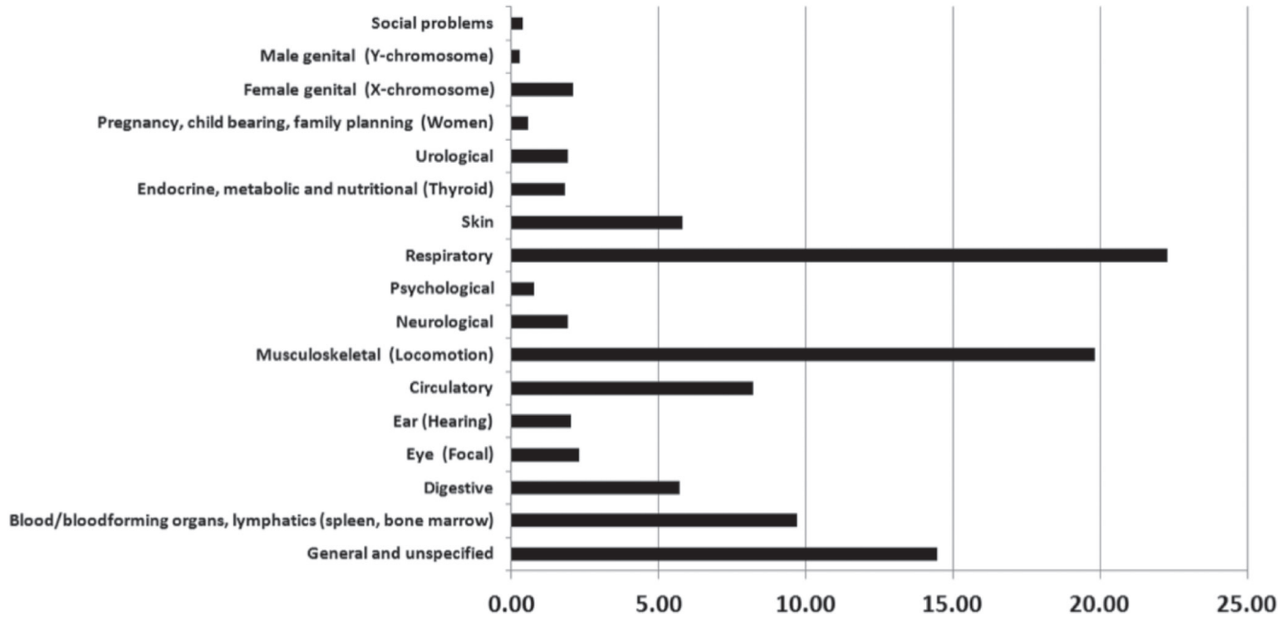
from a service provision point of view, the fact that most patients attending between 08.00-17.00 hours bring up more issues and have more co-morbidities must be taken on board and considered accordingly.

The reasons why patients seek medical care are usually a reflection of their personal needs and expectations, and this parameter is therefore an essential part of analysing the outcome of care. A patient-centred approach should be the aim of every consultation and understanding the patients' expectations will help to improve the personalised service provided, thus resulting in more effective management and improved patient satisfaction (olde Hartman, et al, 2011). As can be seen in Figure 5, the three commonest areas of patient complaints were respiratory, musculoskeletal and general complaints. Indeed this resonates very much with the findings from previous similar studies, both locally and abroad (Cuschieri and Sammut, 2013; Agius-Muscat and Carabott, 1989; Soler, et al., 2011; Nylenna and Bruusgaard, 1987; Moth, Olesen and Vedsted, 2012). Indeed, the most recent study by Cuschieri & Sammut (2013) reports the same top three conditions. The slight differences noted between the latter and our study might be attributed to the timing of data collection – the Cuschieri & Sammut (2013) study was carried out during the period of July to October 2013, whilst our present study was carried out during the month of January 2017. Consequently, the amount of respiratory complaints might have been somewhat over-represented, given that respiratory infections tend to be commoner in cold weather (Eccles, 2015).

Mosta Health Centre provides a GP service which is free at the point-of-care. This fact, coupled with the above findings, does indeed raise some questions related to the type of care provided and requested by patients – do GPs provide episodic care or anticipatory care? A study of a free clinic in Dunedin, New Zealand showed that most patients attending the free clinic have a tendency to episodic care involving administrative tasks, rather that actively engaging in anticipatory and preventive care. Sickness benefit and prescription renewals were two of the most frequent triggers for a consultation (Loh, Jaye and Dovey, 2015). This was also reflected in this study, with most complaints being either episodic or administrative in nature. This pattern of consulting (also known as health seeking behaviour) might indeed reflect a population which is not particular resonant with preventive care. As a consequence, health outcomes tend to be worse (Swerissen, Duckett and Wright, 2016). In this regard initiatives like the chronic disease management clinic might address such issues. A more practical proposal might be that a named-doctor clinic is regularly run so that patients can be followed up by the same doctor, thereby enhancing continuity of care and also affording more preventive care.

It is important to keep in mind the difference in the agenda and goals or values of patients and doctors, as this might lead to poor uptake of services or poor adherence to recommended treatments (Loh, Jaye and Dovey, 2015). Outreach campaigns are required to enhance engagement in preventive services, keeping in mind certain patients that might still not be engaged by these efforts. Such

Figure 5: Areas of complaints (percentage of total population in this study)



*The list of areas of complaints/reasons for encounters was obtained from the International Classification of disease in Primary Care-2 (Wonca Interantional Classification Commitee, 1998).

Table 1: The attendance of patients according to locality

	Frequency	Precent	Population*	Total Population of Malta
Għargħur	22	2.7	2727	
Mellieħa	37	4.5	9126	
Mġarr	20	2.4	3572	
Mosta	280	34.1	19865	
Naxxar	97	11.8	13607	
Other	74	9.0	61499	
Other-outside	35	4.3	305450	
San Pawl il-Baħar	255	31.2	18557	434403

Għargħur (Xwieki); Mellieħa (Selmun, Għadira, Marfa, Ċirkewwa); Mġarr (Żebbiegħ); Mosta (Bidnija); Naxxar (Birguma, Magħtab, Salina, Baħar iċ-Ċagħaq); San Pawl il-Baħar (Buġibba, Qawra, Xemxija, Għajn Tuffieħa,Wardija, Pwales); Other (any area under Rabat and Birkirkara health centres); Other-outside (any other area of Malta)
(*National Satistics Office, 2015)

campaigns should not only be physically conceived outside of the health centres, but innovative approaches might be considered within the health centre and possibly even as routine practices during consultations. In fact, this should not be seen to be a "one-off" initiative but more of an approach that should be taken over multiple episodes of care, ideally also in conjunction with a policy and service delivery environment that facilitates behaviour change (Loh, Jaye and Dovey, 2015).

Strengths and Limitations

The sample of 820 consultations recorded over a month period represents roughly 20.5% of the total GP consultations done at Mosta Health Centre and should be very much reflective of the activity at this health centre. On the other hand the results might have influenced by the fact that a substantial majority of recorded consultations occurred during weekdays. The fact that 6 GPs of varying backgrounds and experience,

and working different shifts including night duties, were involved further reduced any individual observer bias which might have been an issue if the number of GPs involved was much smaller.

The fact that the data was collected and recorded in real time (at the end of each consultation) was very important both to reduce (and possibly eliminate) recall bias, but also for complete collation of the results. In fact out of the data collected, only 7 issues for consultation were unaccounted for.

Despite a pooled effort (by the 6 authors) in drafting a list of potential co-morbidities, it is very unfortunate that the second most common co-morbidity recorded falls in the 'others' category. Indeed, on further reflection, notable omissions from the list include kidney disease and gastroenterological conditions (including inflammatory bowel disease and liver disease).

A particular limitation of this study is that only GP consultations were included. Indeed this was the plan from the start. However, the fact that house visits, special clinics and the treatment room were omitted from the study detracts from the potential generalisability of findings. Although the findings of this study might be used to inform practice in other health centres, it should be noted that the catchment area of each health centre in Malta has certain distinctive and individual characteristics with respect to patient population and health seeking behaviours.

CONCLUSION

This study was conducted at Mosta Health Centre. Over a one month period, 820 patient encounters were studied. During a single visit, Maltese nationals consult for a greater number of issues and have a greater number of co-morbidities than non-Maltese nationals. People attending between 08.00 and 17.00 hours tend to present with a greater number of issues for management. Amongst other issues, very significant relations were observed between age and number of co-morbidities; time of attendance and number of co-morbidities; and also between number of co-morbidities and issues brought up during a consultation. Suggestions for service development have been put forward in the discussion. Ideally, such studies should be conducted independently in different health centres given the notable differences in the catchment areas and during different months of the year.

Dr Marilyn BALDACCHINO
MD, MMCFD
Mosta Health Centre, Primary Health Care Department, Malta
E-mail: marbaldacchino@gmail.com

Dr Jurgen ABELA
MD, DCH (Lond.), MSc (Warw.), FMCFD, FLCM, FRCGP(UK)
Mosta Health Centre, Primary Health Care Department, Malta

Dr Elanja Marie REIFF
MD, ALCM, MMCFD
Mosta Health Centre, Primary Health Care Department, Malta

Dr Julian GRIMA
MD, MMCFD
Mosta Health Centre, Primary Health Care Department, Malta

Dr Lorna ATTARD
MD, MRCS (Edin.), MMCFD
Gozo Health Centre, Victoria, Gozo, Malta

Dr Robert ELLUL
MD, PG Cert Diabetes (Wales), MMCFD
Mosta Health Centre, Primary Health Care Department, Malta

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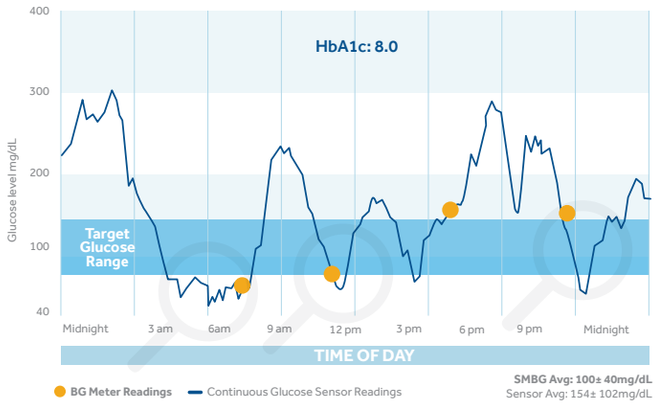

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