

INTRODUCTION

450 million people worldwide suffer from mental health conditions¹. In Malta, all patients may be referred to, and when necessary, institutionalised at the state-run mental health care institution, Mount Carmel Hospital (MCH). MCH is forecasted to absorb almost 8% of the total expenditure on health in 2014, with mental hospital expenditures amounting to 96.82% of the total mental health budget². Formal plans to improve the pharmaceutical care for the patients at MCH are required.

AIMS

- To evaluate the pharmaceutical care procedures practised at Rehabilitation Hospital Karin Grech (RHKG) and MCH by means of on-site surveys and interviews.
- To compare the two local hospitals mentioned by using the data previously collected emphasising the role of the pharmacist at ward level, centred on the concept of a multidisciplinary approach.
- To carry out statistical analysis of the pharmaceutical treatment patterns and medications dispensed at MCH and also to perform a cost effective analysis.

METHOD

Two wards at MCH were analysed via a survey of pharmaceutical care functionality and interviews were carried out with nine members of the nursing staff. RHKG was chosen as a comparator for a standard multidisciplinary approach and a side-by-side analysis was carried out. Forty two patient files were accessed to obtain the relevant treatment schedules and a statistical overview of medication frequencies and costing³ was developed.

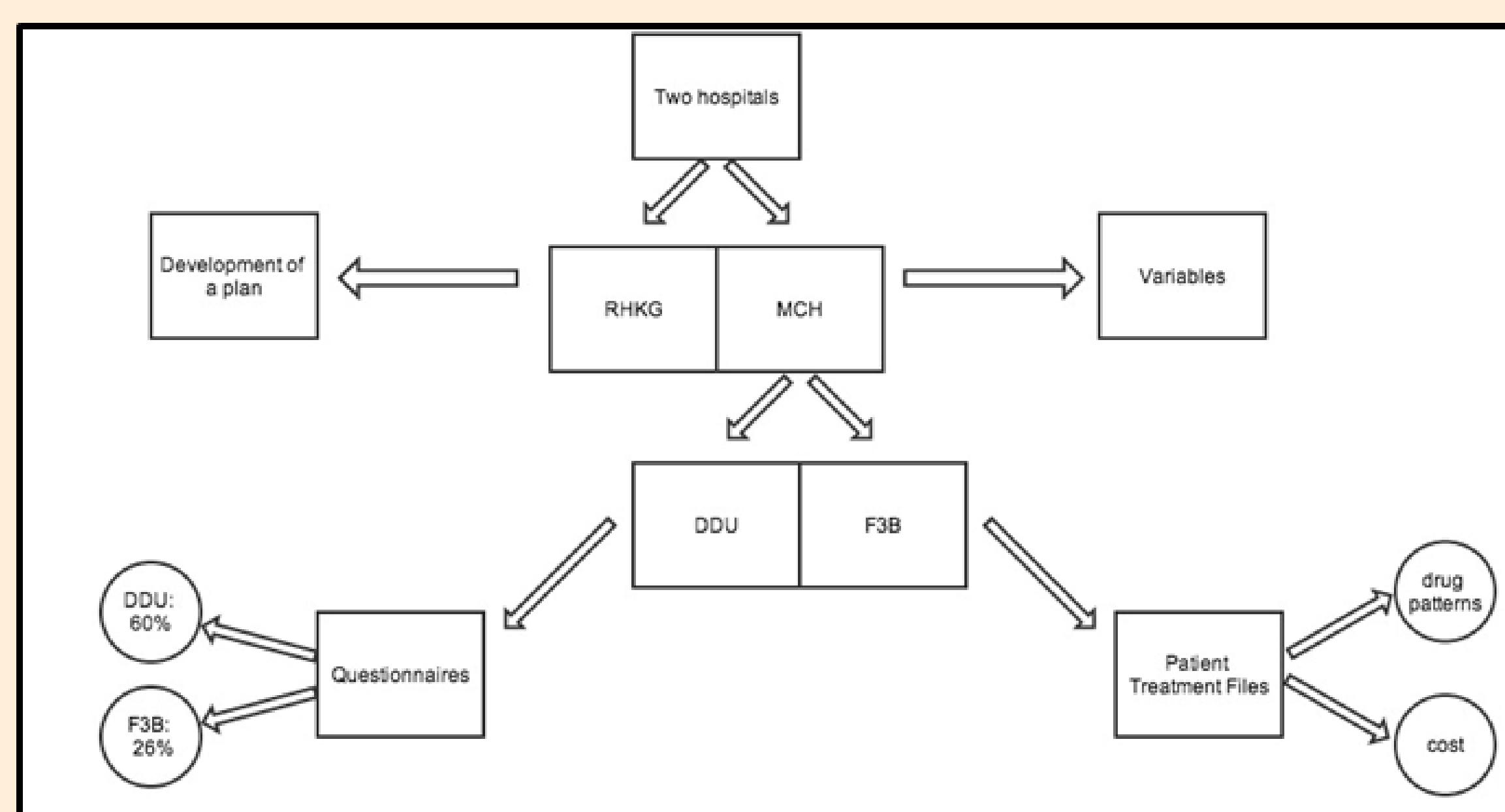


Figure 1 The design implemented in order to carry out the project

DDU: Dual Diagnosis Unit

F3B: Female 3B Ward

RESULTS

Four nurses in the DDU were 60% satisfied whilst the nurses in the F3B ward were only 26% satisfied with the current system at MCH. Hydroxyzine and lorazepam were the drugs most commonly prescribed (Figure 3). A total of 120 drugs and 442 tablets were used in the two wards on a particular day with patients who tend to retain the same treatment over an extensive period of time. A cost analysis was carried out in order to draw conclusions on the expenditure granted to MCH during the project time frame. A lack of multidisciplinary care integration and no IT system to enable comprehensive medication management were the two most limitations identified.

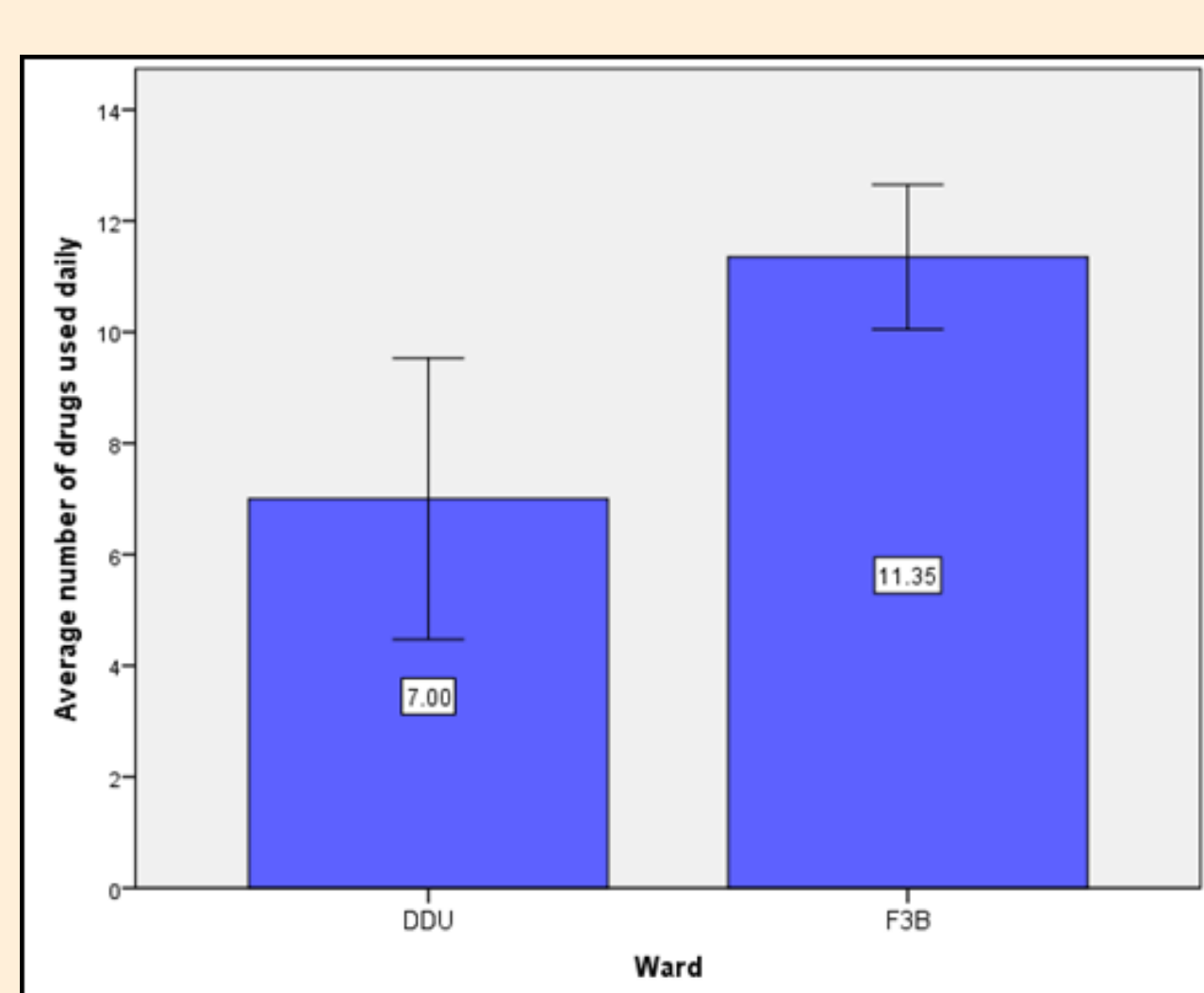


Figure 2 What is the assessment of the current ward medication order system? (n=9, p=0.014)

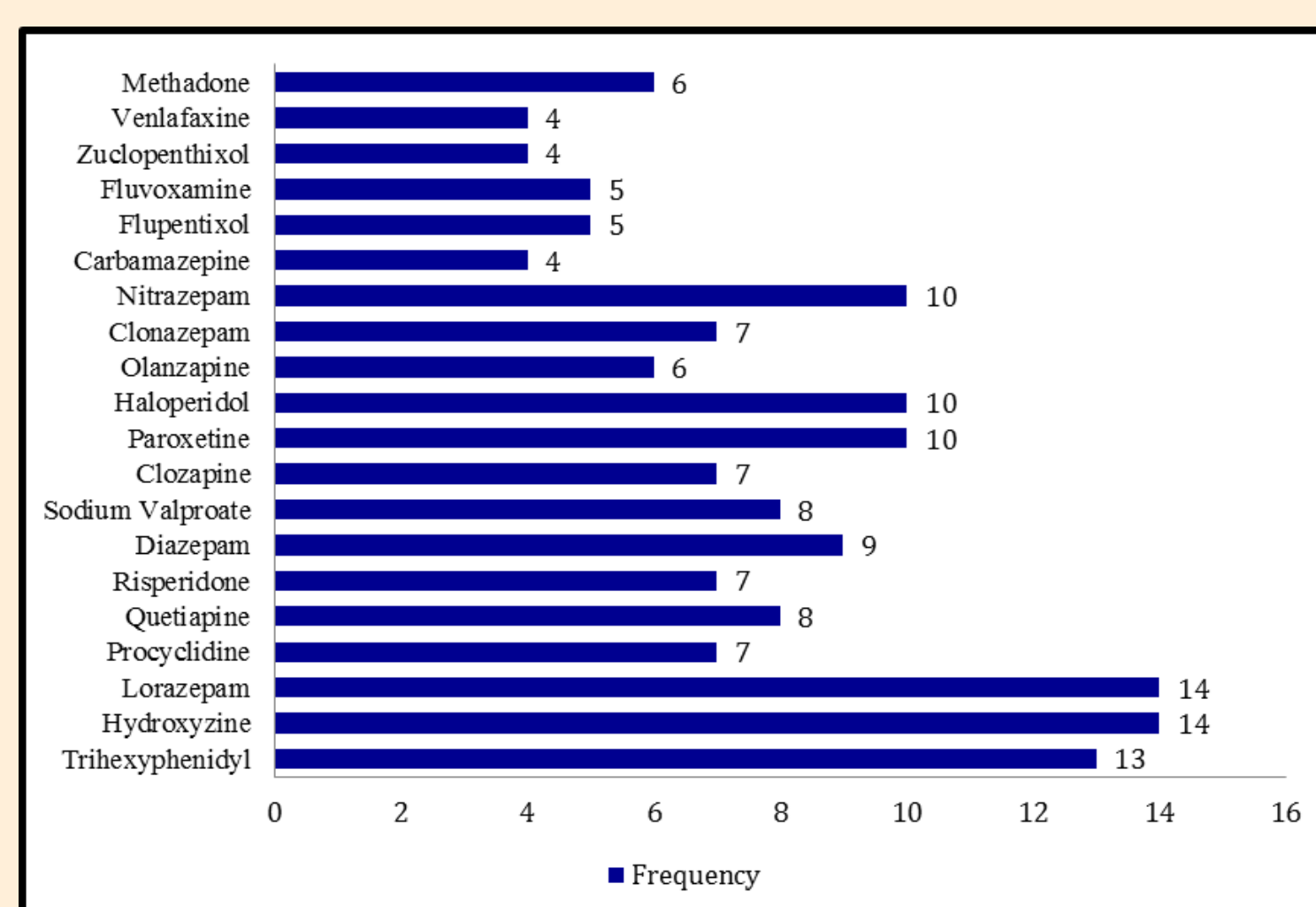


Figure 3 Frequency of the drugs utilized by both study wards

	C	D	E	F	G
		DOSE	DOSAGE FORM	CLASSIFICATION	COST
ACETAZOLAMIDE		250MG	TABS	EYE	0.038
ACTRAPID (SOLUBLE INSULIN)		100IU/ML	INJ	ENDOCRINE	2.61
ALLOPURINOL		100MG	TABS	ENDOCRINE	0.011
ALLOPURINOL		300MG	TABS	ENDOCRINE	0.015
AMITRIPTYLINE		25MG	TABS	CNS	0.0114
AMLODIPINE		10MG	TABS	CVS	0.0171
AMLODIPINE		5MG	TABS	CVS	0.01
AMOXICILLIN		250MG	TABS	ANTIBIOTIC ETC	0.0203
ARACHIS OIL/CHLOROBUTANOL		N/A	DROPS	MISC	N/A
ASPIRIN		75MG	TABS	MUSCULO/SKELETAL	0.0079
BECLOMETHASONE		250UG	INHALER	RESPIRATORY	2.8
BECLOMETHASONE		500UG	INHALER	RESPIRATORY	2.15
BENDROFLUAZIDE		1MG	TABS	CVS	0.0089
BENDROFLUAZIDE		5MG	TABS	CVS	0.0089
BENZHEXOL		2MG	TABS	CNS	0.0156
BEZAFIBRATE		400MG	TABS	CVS	0.0917
BROMAZEPAM		3MG	TABS	CNS	0.0153
BROMAZEPAM		6MG	TABS	CNS	0.02748
BROMHEXINE		8MG	TABS	RESPIRATORY	0.016
BUPRENORPHINE/NALAXONE		2MG	TABS	CNS	N/A
BUPROPION		150MG	TABS	CNS	N/A
BUSPIRONE		10MG	TABS	CNS	0.483
BUMETANIDE		1MG	TABS	CVS	0.0482

Figure 4 A screenshot of the medications utilised in the wards showing the unit costs

CONCLUSION

A proposed multidisciplinary system will maximize clinical effectiveness of mental health care at MCH, addressing both patients and costs, by providing continuity of care, support and an organised response to the issues at hand. Taking into consideration the limitations to the system at Mount Carmel, the most pertinent amendments are a re-evaluation of expenditures combined with the introduction of an electronic patient medication record system, which would definitely enable the standard of pharmaceutical care to be taken to a higher level.

References

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