Religious Beliefs towards the End of Life among Elderly Patients with Chronic Heart Failure and the Relationship with End-Of-Life Preferences

Daisy J.A. Janssen[1,2*], **Josiane J. Boyne**[3], **Lucas Jörg**[4], **Matthias E. Pfisterer**[5], **Hans Rickli**[6] **and Hans-Peter Brunner-La Rocca**[5,7]

[1]*CIRO, Centre of Expertise for Chronic Organ Failure, Horn, The Netherlands*

[2]*Centre of Expertise for Palliative Care, Maastricht University Medical Centre (MUMC+), Maastricht, The Netherlands*

[3]*Department of Patient & Care, Maastricht University Medical Centre (MUMC+), Maastricht, The Netherlands*

[4]*Clinic of Cardiology, University Hospital Liestal, Switzerland*

[5]*Department of Cardiology, University Hospital Basel, Switzerland*

[6]*Department of Cardiology, Kantonsspital St.Gallen, Switzerland*

[7]*Department of Cardiology, Maastricht University Medical Centre (MUMC+), Maastricht, The Netherlands*

[*]**Corresponding author:** Daisy J.A. Janssen, MD PhD, Department of Research and Education, CIRO, centre of expertise for chronic organ failure, Hornerheide 1, 6085 NM Horn, The Netherlands, Tel: +31 475 587 686, Fax: +31 475 582 618; E-mail: daisyjanssen@ciro-horn.nl

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Abstract

Objective: Religious beliefs may influence end-of-life decision-making among patients with Chronic Heart Failure (CHF). Objectives of the current longitudinal observational study were: 1) to explore whether and to what extent preferences for life-sustaining treatments and willingness to trade survival time for excellent health are influenced by religious beliefs among elderly patients with CHF; and 2) to explore whether and to what extent religious beliefs change towards the end-of-life among elderly patients with CHF.

Methods: This longitudinal observational study included 427 elderly patients with CHF of the TIME-CHF study (69% of the original sample). Patients were recruited in several hospitals in Switzerland and Germany. Faith, religious beliefs (Religion Questionnaire), preferences for Cardiopulmonary Resuscitation (CPR) and willingness to trade survival time for excellent health were assessed. The relationship between religious beliefs and preferences for CPR and willingness to trade survival time at baseline was explored. In addition, changes in religious beliefs between baseline and 12 months were explored among patients who died between 12 and 18 months.

Results: Most patients were Catholic or Protestant. Atheist patients more often preferred 'Do Not Resuscitate' (DNR) than Catholic patients ($p=0.03$). Patients with full agreement with statements of the Religion Questionnaire were less likely to prefer DNR than patients with no agreement ($p<0.05$). There was no relationship between faith or religious beliefs and willingness to trade survival time for excellent health ($p>0.05$). The belief in afterlife increased among patients who died between 12 and 18 months ($p=0.04$).

Conclusions: This study showed a limited relationship between religion and preferences regarding CPR in patients with CHF. Religious beliefs may change towards the end of life. Therefore, exploring religious beliefs and the influence on preferences for life-sustaining treatments as part of advance care planning is needed.

Keywords: Religion; Spirituality; Life-sustaining treatment preferences; Advance care planning; Advance directives; Living will; Faith

Introduction

T e palliative care needs of patients with advanced chronic heart failure (CHF) have been increasingly recognized [1]. Addressing spiritual issues is an important component of palliative care [1]. Indeed, religion or spirituality was related with less fear about dying [2]. Moreover, patients with CHF and their informal carers have expressed a need for spiritual support [3]. Religious beliefs may increase towards the end-of-life [4], but this has not yet been explored in a Western-European CHF population. Knowledge concerning religious beliefs and changes in religious beliefs towards the end-of-life is needed for the provision of spiritual support as part of palliative care fo]ĸq

study including US patients with cancer, COPD or CHF showed mixed results. Patients who reported to grow closer to God and growing spirituality were more willing to undergo life-sustaining treatments. However, a relationship between willingness to undergo life-sustaining treatments and other dimensions of religiousness was lacking [8]. Naghi et al. [9] showed that realistic goals and expectations can be affected by spirituality in patients with CHF and concluded that spirituality should be discussed in the context of ACP and may provide the framework that patients use to accept the realism of death in the relatively near future. However, understanding the relationship between religious beliefs and preferences regarding life-sustaining treatments is needed to support patients in the process of decision-making.

Therefore, the objectives of the current longitudinal observational study were: 1) to explore whether and to what extent preferences for life-sustaining treatments and willingness to trade survival time for excellent health are influenced by religious beliefs among elderly patients with CHF; and 2) to explore whether and to what extent religious beliefs change towards the end-of-life among elderly patients

(20.6% of the original sample) did not respond to some items of the Religion Questionnaire. Age and left-ventricular ejection fraction were

Unknown	7 (1.6%)

n=427. *n=426. †n=425. Data reported as n (%), mean (SD) or median (IQR).

Abbreviations: BMI=Body Mass Index; CAD=coronary artery disease; DCM, dilated cardiomyopathy; HHD, hypertensive heart disease; LVEF=Left-ventricular ejection fraction; NT-BNP=N-terminal- pro-B-type natriuretic peptide; NYHA=New York Heart Association; MLHFQ=Minnesota Living with Heart Failure Questionnaire; GDS-SF=Geriatric Depression Scale-Short Form

Table 1: Patient characteristics.

	0 Not at all	**1**	**2**	**3**	**4**	**5 Full agreement**
I consider myself as religious	67 (15.7%)	29 (6.8%)	74 (17.3%)	67 (15.7%)	53 (12.4%)	137 (32.1%)
My religion helps me especially in case of worries and misfortune	86 (20.2%)	42 (9.8%)	45 (10.5%)	60 (14.1%)	57 (13.3%)	137 (32.1%)
If something bad happened, I had wondered why God would punish me	216 (50.7%)	44 (10.3%)	42 (9.8%)	54 (12.6%)	26 (6.1%)	45 (10.5%)
I believe that there is a God (or a higher power)	48 (11.2%)	14 (3.3%)	27 (6.3%)			

If something bad happened, I had wondered why God would punish me	Not at all (n=216)	92 (42.6%)	0.88
	Full agreement (n=45)	18 (40.0%)	
I believe that there is a God (or a higher power)	Not at all (n=48)	26 (54.2%)	0.05
	Full agreement (n=263)	99 (37.6%)	
After death everything ends	Not at all (n=168)	67 (39.9%)	0.71
	Full agreement (n=124)	53 (42.7%)	
There will be a rebirth (reincarnation) of the soul in another life	Not at all (n=207)	79 (38.2%)	0.61
	Full agreement (n=73)	31 (42.5%)	
The resurrection of Jesus Christ gives some sense to my death	Not at all (n=112)	48 (42.9%)	0.28
	Full agreement (n=160)	57 (35.6%)	
Data reported as n (%). Abbreviation: DNR=Do Not Resuscitate.			

showed relatively high levels of religiousness in the domains forgiveness, daily spiritual experience, belief in afterlife, religious identity, religious support, public practices, positive religious or spiritual coping. Daily religious experiences were related with less

faith and preferences for life-sustaining treatments might have been stronger when a higher proportion of patients with other faiths had been included. Indeed, in most Muslims cultures, illness is considered as a whole-family affair. Family members may prefer to make decisions concerning life-sustaining treatments and end-of-life care and may be unwilling to forego life-sustaining interventions [29]. In addition, no Buddhist patients were included. A qualitative study among Tai patients with CHF has shown the important influence of Buddhism on the experience of living with CHF. For example, practicing Buddhism through meditation and prayer provided comfort, a sense of control and a renewed sense of happiness [30]. Whether and to what extent Buddhism influences life-sustaining treatment preferences among patients with CHF is, however, unknown. Second, the proportion of atheist patients was higher among excluded participants in the current analysis, because of missing data on the Religion Questionnaire. It's reasonable to assume that if these participants had completed the Religion Questionnaire, the proportion of patients without or with low religious beliefs would have been higher and this might have influenced our results. Third, only 17 patients died between 12 and 18 months. Therefore, the fact that we did not find a statistically significant change in religious beliefs other than belief in afterlife could be explained by the limited sample size. Fourth, the present study included elderly patients with CHF and it remains unknown whether and to what extent the results are generalizable to younger CHF patients. Fifth, data were collected between 2003 and 2008 [31]. Nevertheless, this study shows previously unpublished data that merit consideration for clinicians in planning end-of life care for patients and their families. Finally, we used the German-language Religion Questionnaire. However, multiple instruments are available to assess religious beliefs, such as the Duke Religion Index, the Ironson-Woods Spirituality/Religiousness Index or the Beliefs and Values Scale [32]. The use of another instrument than the Religion Index might have changed our results. Moreover, standardization of questionnaires about religious beliefs is limited and should be considered in future studies.

Conclusions

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