

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

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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:**

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Unknown	7 (1.6%)
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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

	<b>0 Not at all</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5 Full agreement</b>
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.			

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