



Reactive Depression's Relationship to Rehospitalization in Heart Failure Patients

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Rationale

- Diagnosed in over 5.7 million Americans
- Over 668,000 Emergency room visits annually
- Over 6.5 million hospital days annually
- Primary cause of death in 50, 000 death and noted as findings in 250,000 additions deaths annually
- Rehospitalization in HF is correlated to increased mortality

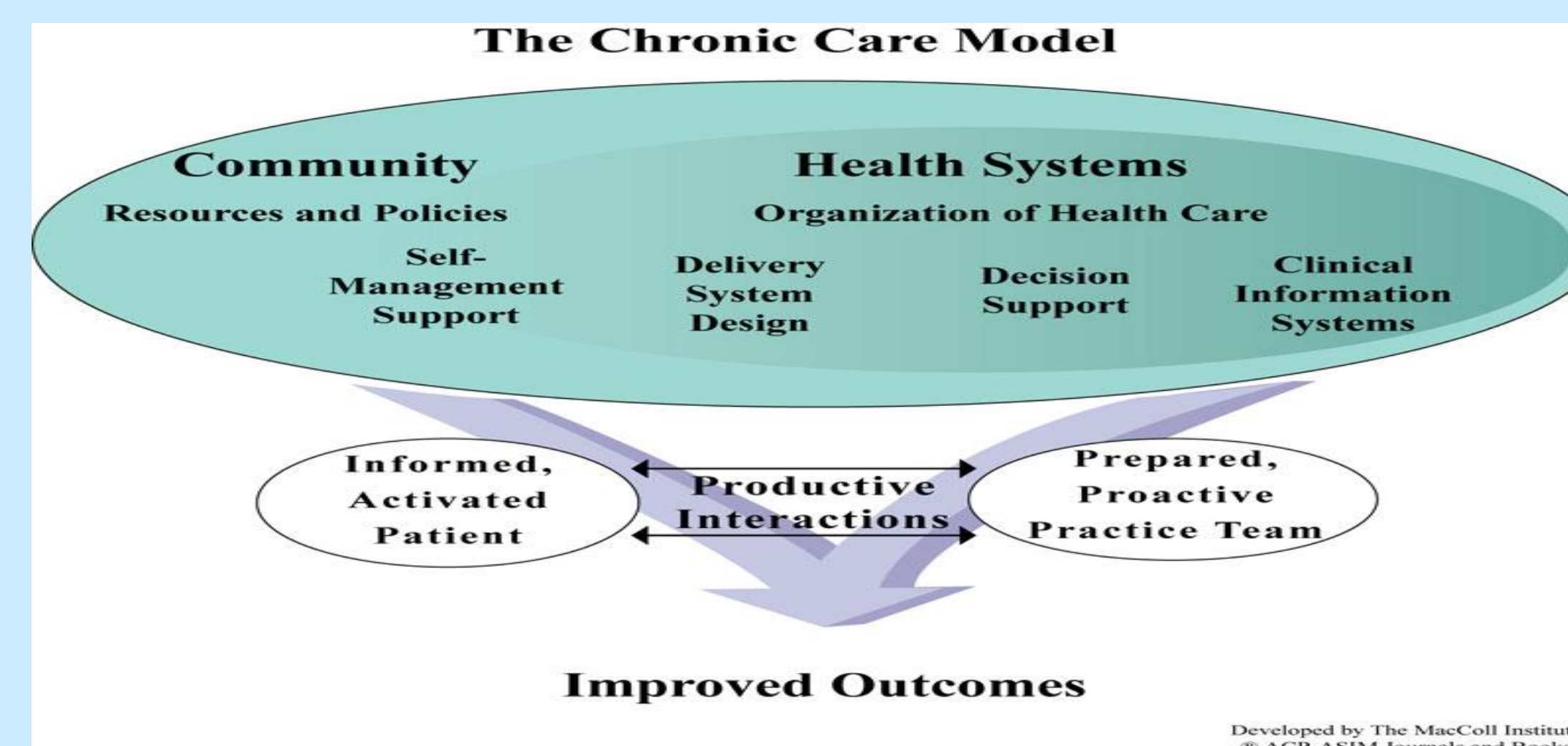
Purpose/Aims

- Explore the effect of reactive depression on all-cause rehospitalization and mortality patients during the 12 month following an index hospitalization for HF exacerbation.
- Describe the effect and variance of depression related to all-cause rehospitalization in HF patients.

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Methods

- Secondary Data Analysis of data from The Self-Management and Care of Heart Failure (SMAC-HF) Trial*
- Academic Medical Center in the Midwest
- Theoretical Framework: Wagner's Chronic Care Model



- N=198 (Class III, IV patients recently admitted with HF exacerbations)

Subject Characteristic	Overall (n = 198)	SMAC-HF Intervention (n = 92)	Standard of Care (n = 106)
Age (in years) (mean, SD)	62.3 (13.2)	62 (13.1)	61(13.3)
Male Gender (n, %)	122 (61.1%)	69 (75%)	52 (49%)
Race			
African-American (n, %)	87 (43.9%)	35 (38%)	52 (49.1%)
Caucasian (n, %)	105 (53%)	52 (56.5%)	54 (50.9%)
Native American or Alaskan	2 (1%)	1 (1.1%)	1 (.9%)
More than one background	4 (2%)	4 (4.3%)	0
Marital Status			
Married (n, %)	83 (41.9%)	40 (43.4%)	42 (39.6%)
Widowed (n, %)	30 (15.2%)	15 (16.3%)	14 (13.2%)
Divorced (n, %)	45 (22.7%)	28 (30.4%)	17 (16%)
Separated (n, %)	10 (5.1%)	5 (5.4%)	5 (4.7%)
Never Married (n, %)	30 (15.2%)	17 (18.4%)	13 (12.2%)
Charlson Comorbidity Index (mean, SD)	6.65 (2.83)	6.0 (2.6)	7 (3.0)
CESD Score (median, range)	7.5 (0, 28)	7 (7.0)	8 (6.0)
Years since HF diagnosis (median, range)	2.3 (0.01, 38.76)	3.39 (6.2)	7 (8.9)
Depressed (CESD > 16) [†] (n, %)	48 (24.2%)	21 (22.8%)	27 (25.5%)

[†]: Radloff, 1977

	CESD	
	≤ 16 Not Depressed (n = 150)	> 16 Depressed (n = 48)
All-cause mortality and/or hospitalization (n, %)	68(45.3%)	30(62.3%)
All-cause mortality (n, %)	15 (10%)	3(6.3%)
All-cause rehospitalization (n, %)	67(44.7%)	30(62.3%)
# of 12-month rehospitalizations (median, range, S.D.)	00, 0-10, 1.8	1, 0-7, 1.7

	Odds Ratio	95% CI	p-value	Wald
Model 1: Composite	1.015-1.110	1.015-1.110	.009	6.804
Model 2: Mortality	.963-1.109	.963-1.109	.364	.823
Model 3: Rehospitalization	1.015-1.110	1.015-1.110	.009	6.8

Results

- Depression as measured by CES-D score greater or equal than 16 has a significant relationship with all-cause rehospitalization p=.09
- For every 1 unit increase in CES-D the odds of all-cause rehospitalization increases by 6.8%
- Depression did not have an interaction effect between preparedness and all-cause rehospitalization and/or mortality.

Clinical Relevance

- A significant relationship was identified between depression and all cause rehospitalization.
- Screening for depression should be part of heart failure management.
- Management of depression may decrease rehospitalization in HF patients.