

Health Literacy of patients with heart failure in a Dutch population

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BACKGROUND

Limited Health Literacy affects about 3 in 10 persons in the Netherlands. Especially for people with chronic conditions like heart failure, adequate health literacy is needed to maintain, monitor and manage their health and their chronic condition. While nurses are expected to meet the specific support needs of their patients, many find it difficult to recognize and assess the level of health literacy of their patients.

PURPOSE

To examine and compare health literacy in patients with heart failure patients from the nurses' perspective against two health literacy measurement tools.

METHODS

Patients with heart failure were recruited in the outpatient cardiology departments of four different hospitals in the Netherlands. Information about health literacy of the patients was collected with a self-reported questionnaire (Set of Brief Screening Questions - SBSQ) and with the Newest Vital Sign-Dutch (NVS-D). Finally, nurses and nurse practitioners assessed health literacy of the patients on a visual analogue scale from 0-6. Additionally, demographic data (gender, age, level of education and native language) and clinical data (NYHA class and medication use) were collected.

RESULTS

61 patients with heart failure were recruited during 2022. Mean age was 68.5 (± 14.6), 66% were men, 61% had a lower educational level. Most patients (86%) were native Dutch speakers and had a NYHA classification between II-III (46%). The mean number of used cardiac medication was 5.8 (± 1.7).

55 patients completed the SBSQ, fifteen (27%) scored an average ≤ 2 , indicating inadequate health literacy. The NVS-D was completed by 53 patients. Twenty-seven patients (51%) scored 0-1, suggesting limited health literacy. Fourteen patients (26%) scored 2-3, indicating possible limited health literacy.

The nurses' assessments (using >3 on the visual analogue scale as adequate health literacy), indicated 35 patients (63%) as having adequate health literacy. There was only poor to slight agreement with the results of the SBSQ (Kappa: 0.198).

For comparison with the NVS-D, the visual analogue scale was divided into three groups (limited health literacy (<2), possibly limited health literacy (2-4) and adequate health literacy (>4). This resulted in 10 patients (18%) with limited health literacy according to nurses, 23 (41%) with possibly limited health literacy and 23 (41%) with adequate health literacy. There was also poor agreement between the nurses' assessment and the NVS-D results (Kappa: 0.133).

Table 1: Characteristics of patients (N=61)

Gender (male)	40	(66%)
Mean age (SD)	68.5	(14.6)
Educational level	(n=59)	
High	13	(22%)
Moderate	10	(17%)
Low	36	(61%)
NYHA classification	(n=59)	
-Between I and II	31	(53%)
-Between II and III	27	(46%)
-Between III and IV	1	(2%)
Mean number of medication (SD)	5.8	(1.7)

Note. SD: Standard Deviation; NYHA: New York Heart Association.

Table 2: Health Literacy (HL) of heart failure patients

SBSQ (n=55)	Assessment Nurses (n=56)	
Inadequate HL	15 (27%)	21 (38%)
Adequate HL	40 (73%)	35 (63%)
NVS-D (n=53)		
Limited HL	27 (51%)	10 (18%)
Possible limited HL	14 (26%)	23 (41%)
Adequate HL	12 (23%)	23 (41%)

Note. SBSQ = Set of Brief Screening Questions; NVS-D=Newest Vital Sign-Dutch

CONCLUSIONS

Health literacy is vital for patients with heart failure to process and apply health related information. Although there is no gold standard measuring health literacy yet, this study shows that nurses' assessment does not agree with the SBSQ and the NVS-D. To take health literacy into account during communication, nurses can use the SBSQ, noting that the SBSQ seems to underestimate limited health literacy, while the NVS-D seems to overestimate it.

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