# Health in connection with takotsubo syndrome

## Experiences, symptoms and utilization of health care

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av

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### Avhandlingen baseras på följande arbeten:

- I Wallström S, Ulin K, Määttä S, Omerovic E, Ekman I. Impact of long-term stress in Takotsubo syndrome: Experience of patients. Eur J Cardiovasc Nurs. 2015. [Epub ahead of print] doi: 10.1177/1474515115618568
- II Wallström S, Ulin K, Omerovic E, Ekman I. Symptoms in patients with takotsubo syndrome: a qualitative interview study.
  BMJ Open. 2016; 6:e011820. doi: 10.1136/bmjopen-2016-011820.
- III Wallström S, Ulin K, Omerovic E, Ekman I. Self-reported symptoms 8 weeks after discharge: A comparison of takotsubo syndrome and myocardial infarction. *Int J Cardiol.* 224 (2016) 348-352. doi: 10.1016/j.ijcard.2016.09.052.
- IV Wallström, S. Ekman, I. Omerovic, E. Ulin, K. Gyllensten, H. Health care utilization, costs, and quality of life after takotsubo syndrome.
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#### ABSTRACT

Health is subjective, involves the whole person and cannot be determined by others. It is not merely the absence of disease and illness but a resource in life. Takotsubo syndrome (TS) is a form of acute, reversible heart failure that primarily affects post-menopausal women. The complete pathological mechanisms are unknown but connections to acute stress, for example accidents, public speaking or death of a close one, have been made.

The overall aim of the thesis was to build an understanding of the meaning of being affected by TS and to investigate to what extent people affected by TS utilize health care resources and its accompanying costs.

A multi-method qualitative and quantitative approach was used to gather and analyze data. In Study I and Study II 19 and 25 people, respectively, were interviewed. In Study III, questionnaires were used to compare self-reported symptoms between 48 people with TS and 79 people with myocardial infarction. In Study IV registry data on utilization of health care resources and its costs were retrieved for 58 people affected by TS.

The findings in this thesis show that the people with TS seem to live under burdensome circumstances long before the acute onset of TS and that this affects their health. Symptoms often start a few days before the acute onset and persist after discharge. Residual symptoms cause worry and make it impossible to live as desired. People affected by TS and myocardial infarction had comparable frequency and severity of symptoms 8 weeks after discharge. The average length of stay in hospital was 6,4 days and they had on average 15,6 primary or outpatient clinic contacts during the 6 months after discharge. The average direct health care cost for the period was SEK 95,071.

The conclusion from this thesis is that illness is present before the onset of TS and that the illness persists after discharge. The findings indicate that symptoms and social structures affect health. Person-centered care can be a viable option for combining medicine with the personal experience of health.

Keywords: takotsubo syndrome, health, symptoms, health related quality of life, patent reported outcome measurement, person-centered care, cost of illness