Reviewer's report

Title: Type D personality is a risk factor for psychosomatic symptoms and musculoskeletal pain among adolescents- a cross-sectional study of a large population-based cohort of Swedish adolescents.

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Reviewer: Johan Denollet

Reviewer's report:

This paper is very well written, and addresses a timely issue. As rightfully pointed out by the authors, little is known about the impact of Type D personality in younger populations. In this large, population-based study, the authors showed that Type D personality was associated with a significantly increased odds of psychosomatic symptoms and musculoskeletal pain among 5012 Swedish adolescents. Importantly, these associations remained significant after adjustment for potential confounders, including living conditions, parental unemployment, ethnicity, socioeconomic status, BMI, and exercise habits. Finally, the authors found that it was mainly the negative affectivity component of Type D that was driving this adverse effect on self-reported health.

These findings are important, because they show that Type D personality also has an adverse effect on perceived health status in young, (predominantly) healthy individuals, ruling out the alternative explanation of reversed causality (where the severity of a medical condition could be hypothesized to cause Type D characteristics in middle-aged and older patient populations).

This study has a number of limitations, including the use of self-report and the cross-sectional design of the study, but the authors are to be commended for discussing these limitations in great detail. Nevertheless, I would like to point out one issue, that I would like the authors to discuss somewhat more in detail.

Minor Essential Revisions

1. In this study, there was a relatively low prevalence rate of 10% among boys and 14% among girls. The authors discuss a number of possibilities that might explanation this finding, but they also need to consider the dropout rate as a potential explanation. In this study, participation was voluntary. As can be expected in this type of large-scale, population based studies, a substantial number of eligible adolescents did not respond, leading to an overall 74% response rate. Given their inhibited nature and passive coping style, it is possible that Type D individuals may have been less likely to participate in the study than non-Type D individuals (see, for example, Van Den Broek KC et al., International Journal of Behavioral Medicine 2011, 18:65–70). This could also help to explain the relatively low prevalence rate of Type D personality observed in this study.

2. As an additional issue, please note that in the most recent labeling of the Type
D personality construct, “Type D” personality is written with a capital “T”.

Discretionary Revisions

3. Although this is not a major issue, I was wondering whether the authors also have considered to explore the association between Type D personality and each of the individual psychosomatic symptoms (headache, stomach ache, sleep problems, nervousness, irritability) and pain complaints (shoulders/neck, back/hips, hands/knees/legs and feet).

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.