

Descriptive study of students' global health during the first year of nursing course

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1. BACKGROUND

Student health is an issue of great concern. It has been shown that the health of students in nursing sciences was altered during their nursing training (1,2,3).

We suggest an epidemiological, descriptive, quantitative, observational, longitudinal, multi-center study.

It was conducted both at the beginning and the end of the first year of training of 585 nursing students registered in four French public nursing institutes of Lorraine.

2. RESEARCH OBJECTIVES

The aim of the study was to assess the evolution of the health status of nursing students from the beginning of their first year to the beginning of their second year.

3. METHOD

• **Design.** The study was conducted by questionnaire-based SurveyMonkey among 585 students, registered for the first time in September 2020 in four nursing institutes of the East area in the cities of Metz, Thionville and Nancy. The non inclusion criterion are the students in repeater or resumption of training. With a personal identifier, nursing students completed an anonymous questionnaire outside the training sites at two survey times : T0 in October 2020, T1 in September 2021. The protocol obtained a favourable opinion from the Committee for the protection of persons concerned.

• **Questionnaire.** It consists of 47 questions that focused on sociodemographic characteristics, perceived health, anxiety level, quality of sleep, stature-weight data and diet, physical activity and the use of tobacco, alcohol, cannabis.

• **Statistics analysis.** The main evaluation criterion is the comparison of the data collected in T0 and at T1.

SAS software was used with Mac Nemar and Student matched tests. A univariate analysis was performed for the T0 and T1 samples. Identifiers were matched. The matched population was compared to the T0 and T1 samples. The alpha risk was set at 5% for all analyses.

4. RESULTS

At T0, among 294 respondents, 94% declared a good or excellent state of health, 43% a recuperative sleep, 90% a minimal or moderate level of anxiety and 62% the practice of sports. Concerning stature-weight data, 8% were obese, 15% underweight.

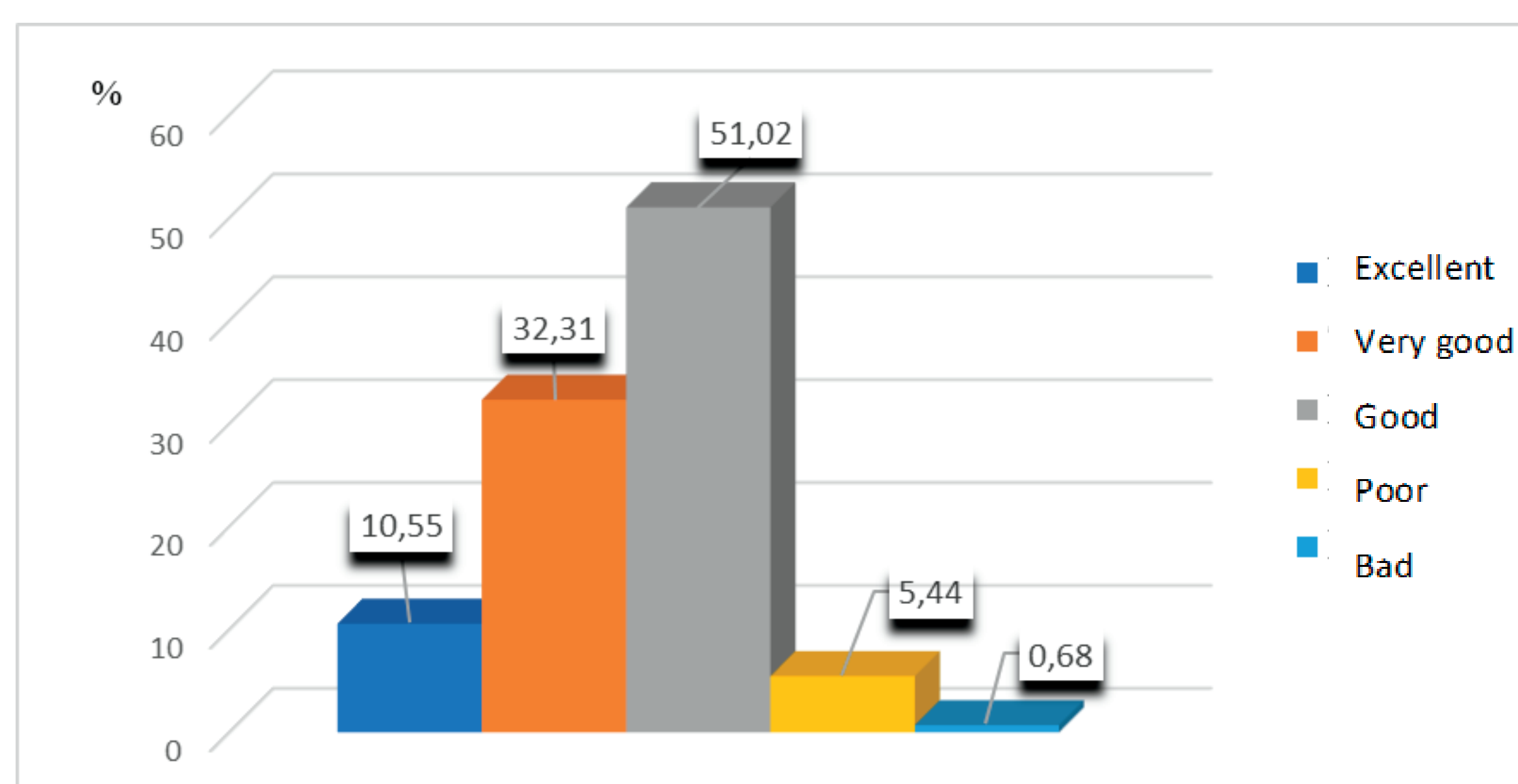


Figure 1. Perceived health status at beginning of training for 294 respondents at T0.

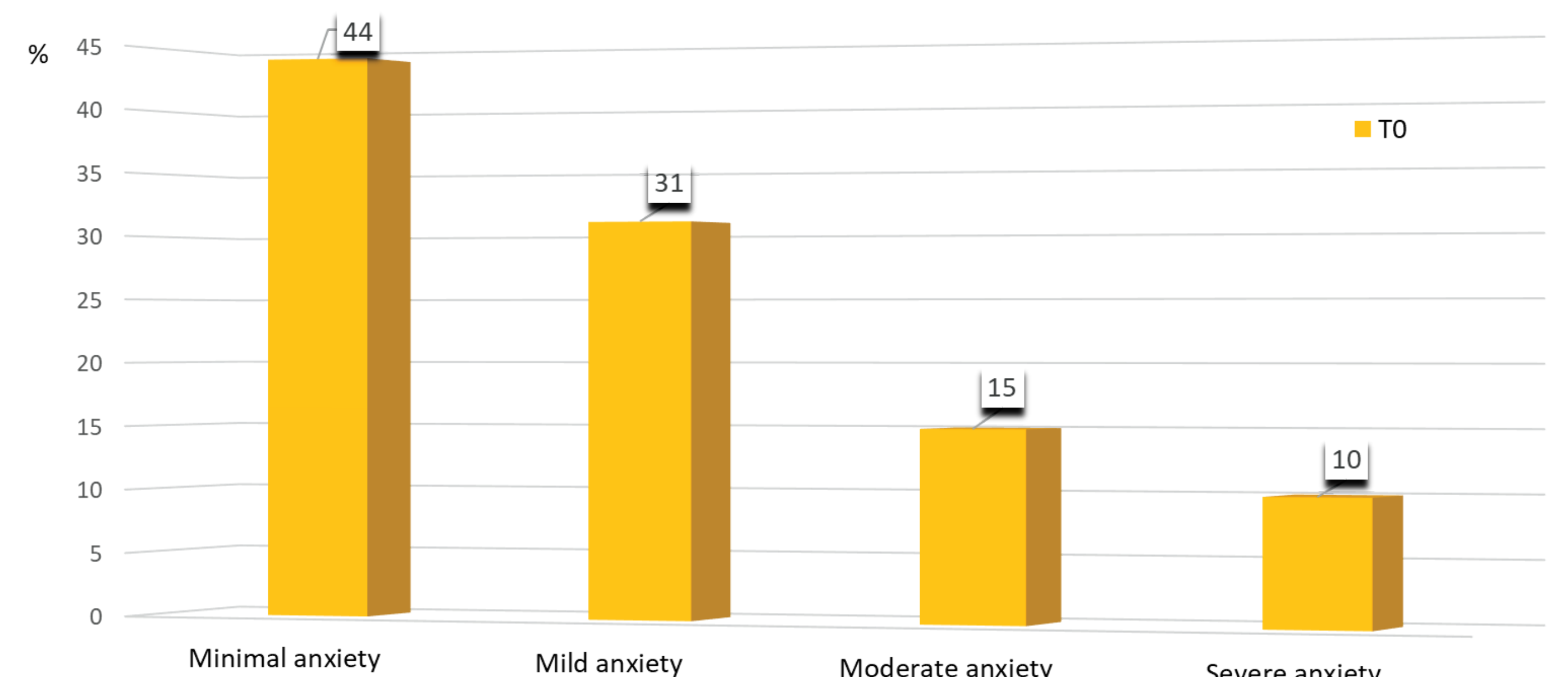


Figure 2. Level of anxiety perceived in the previous 2 weeks for 294 respondents at T0 (GAD-7 score).

The second part of this study was conducted in September 2021. Among 168 respondents, we were able to match 108 identifiers of students who responded at T0 and T1. The evolution of the health status of the 108 students seems stable apart from perceived health and sleep. The proportion of students perceiving their health from good to excellent decreased significantly from the beginning to the end of their first year of training : 98% (T0) versus 85% (T1) ($p < 0.0001$). Concerning sleep, 50% of the students had difficulty falling asleep at T1 compared to 36% at T0. As many students described a positive, nil or negative change in their anxiety level between the beginning and the end of their first year ; the difference between T0 and T1 is not significant ($p = 0.22$). The stature-weight data are stable.

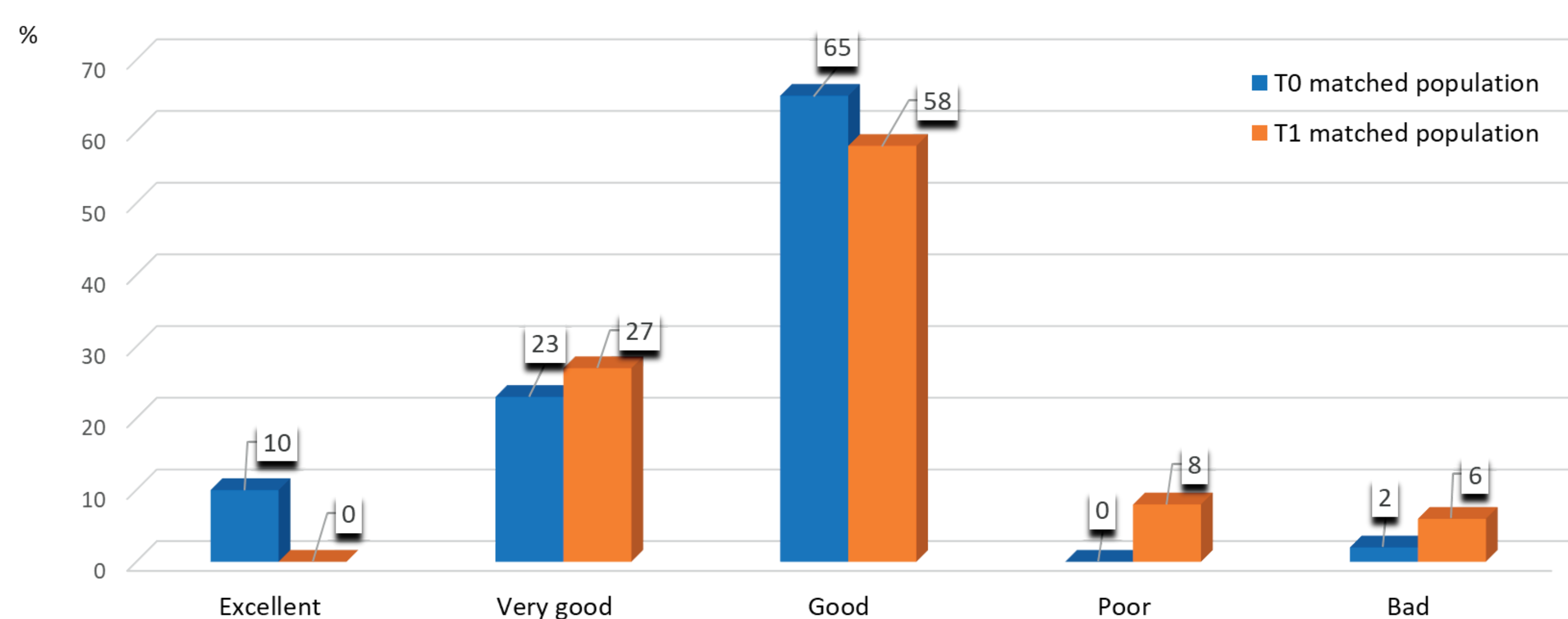


Figure 3. Perceived health status for the 108 students who responded at T0 and T1.

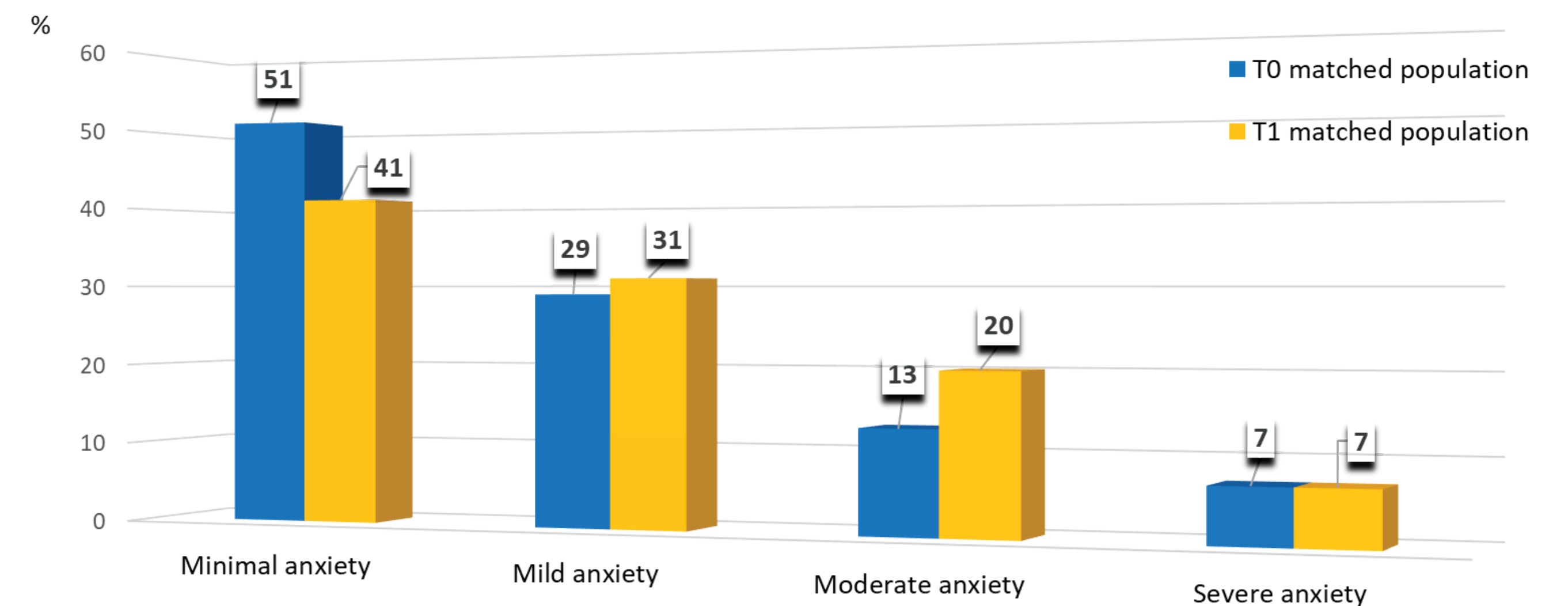


Figure 4. Level of anxiety perceived in the previous 2 weeks for 108 respondents at T0 and T1 (GAD-7 score).

5. DISCUSSION

At T0, the proportion of students reporting good health status is higher than the general French student population at the same age (4).

The results of this study are globally positive and show a rather good health status at beginning of the first year and remains stable after one year of training apart from the perceived health and sleep. The major differences as the student population are the higher rate of underweight and the lower rate of obesity. Their health behaviour seems good concerning diet and the practice of sports.

6. CONCLUSION

The results obtained in this study are rather in favour of a stable evolution of their overall health in contrast to the results of previous studies on the health of nursing students. It would be interesting to continue this study among this cohort of nursing students at T2 (beginning of 3rd year) and T3 (end of 3rd year).

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