

## Portuguese nurses' conceptions of their health education (HE) training and their felt needs of HE

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Primary Health Care (PHC) is seen as the sector of Health Services most appropriate to develop practices of Health Education (HE) and PHC nurses are seen as the key personal. The objectives of the present study were: (i) to identify nurses' conceptions of health education, (ii) to characterise their health education practices, (iii) to know their HE-training, and (iv) to identify their felt needs on HE-training. For this purpose, a cross-sectional and retrospective study was carried out in the whole population of 211 nurses of the total 16 Primary Health Centres of the District of Vila Real, in the Northern Region of Portugal. The quantitative information was collected from questionnaires and it was complemented with deep and interpretative information obtained from interviews.

The highest percentage (69.1%) of questionnaire respondents were included in the category "participative" concept of health education and health promotion (HEHP) whereas the interviewees, although expressing so, showed a rather normative discourse, very much centred in the transmission of information. The majority of nurses said they carry out HEHP activities – "sometimes" (33.8%), "often" (39.8%) and "always" (16.9%) – most of them related to "elderly health" (85.0%). Nurses' continuous HE-training is not associated to their professional position, to their time of PHC activity or to their HEHP conceptions as far as "participative" or "traditional" perspectives are concerned. However, nurses' continuous HE-training seems to promote nurses' motivation for implementing HEHP practices more frequently and for expressing specific felt needs of more HE-training. Moreover, results demonstrate a gap between the offered HE-training and the nurses' HE-training felt needs.

### 1. Introduction

Health Promotion "*is a process of enabling people to increase control over, and to improve, their health [... having] a marked impact on the determinants of health so as to create the greatest health gain for people, to contribute significantly to the reduction of inequities in health, to further human rights, and to build social capital*" (WHO 1997:1). This enunciation was produced at the Forth Conference on Health Promotion under the topic "*New Players for a New Era – Leading Health Promotion into the 21<sup>st</sup> Century*" (WHO 1997) where the previous Health Promotion deliberations were reaffirmed, including those of the well-known Ottawa Charter. It was further assumed that the Primary Health Care (PHC) is the sector of the Health Services most appropriate to develop practices of Health Education, as it acts close to persons, families and communities, aiming to promote health and prevent diseases. Therefore, PHC nurses are seen as the health education key personnel as they have the responsibility for identifying people's health needs in order to improve health lifestyles, health gain and the quality of life (Latter 1998). Thus, the HE-training adequacy to the required professional practices is a major factor to HE good practices. In this respect, the WHO Declaration on "*Health-for-All Policy for the twenty-first century*", specifically its Target 18 "*Developing human resources for health*", affirms that all WHO Member States should ensure that health professional acquire "*appropriate knowledge, attitudes and skills to protect and promote health*" (WHO 1999:198). Therefore, PHC nurses education should provide promotive, preventive, curative and rehabilitative services of good quality.

The framework for nurse's HE-training must be constructed not only from international and national guidelines for health education but also from nurses' felt needs on HE-training. Thus, the objectives of the present study were: (i) to identify nurses' conceptions of health education, (ii) to characterise their health education practices, (iii) to know their HE-training, and (iv) to identify their felt needs on HE-training. The aim is to use the results from the present study to make changes in initial nurses' training to improve their competences in health education.

## **2. Metodology**

### **2.1. Sample**

The questionnaire was applied to the whole population of 221 nurses of the total 16 Primary Health Centres of the District of Vila Real, in the Northern Region of Portugal, SRS-VR ("*Sub-Região de Saúde de Vila Real*").

The criteria for nurses' selection to be interviewed were their professional training, experience in health education and health promotion, their professional position and their competences on critical analysis.

### **2.2. Variables**

Independent variables were SRS-VR nurses' age, sex, academic graduation, professional position and time of Primary Health Care (PHC) professional activity.

Dependent variables were SRS-VR nurses' health education (HE) conceptions, health education and health promotion (HEHP) practices, continuous HE-training, and HE-training felt needs.

Variable HEHP practices was further analysed in two ways: frequency of HEHP activities and type of HEHP activities. The variable HE-training was analysed in terms of HE topics learned in training courses.

### **2.3. Hypothesis**

Six study hypotheses were formulated:

- A) There is no association between nurses' continuous HE-training and their HE conceptions;
- B) There is no association between nurses' continuous HE-training and their frequency of HEHP practices;
- C) There is no association between nurses' HE-training felt needs and their frequency of HEHP practices;
- D) There is no association between nurses' HE-training felt needs and their continuous HE-training;
- E) There is no association between nurses' professional position and their continuous HE-training;
- F) There is no association between nurses' time of PHC professional activity and their continuous HE-training.

## 2.4. Instruments: Questionnaire and interviews

A questionnaire was constructed to be applied to the total population of PHC nurses of the SRS-VR. It was composed of three parts: (i) Part A, having 8 questions to obtain the independent variable data (SRS-VR PHC nurses' age, sex, academic graduation, professional position and time of Primary Health Care (PHC) professional activity); (ii) Part B, composed of 11 questions (3 of them closed questions, 6 semi-open questions and 2 open questions) to assess the nurses' HE conceptions, their frequency of HEHP activities and the type of HEHP activities; (iii) Part C, containing 8 questions (4 of them closed questions and other 4 semi-open questions) to estimate nurses' frequency of continuous HE-training and the topics learned as well as their HE-training felt needs.

A pilot study was carried out in a similar population of PHC nurses of the Health Centre of Lamego (also in the Northern Region of Portugal). As a result, little improvements were made to the original questionnaire in order to get its final version to be applied to the sample of this study.

A semi-structured interview schedule was constructed based on the same items as the ones of the questionnaire, having 16 questions: (i) Part A, composed of 7 questions for interviewee's identification and general characterisation; (ii) Part B, with 2 questions aiming to understand the interviewee's HEHP conception; (iii) Part C, having 7 questions to characterise the interviewee's attitudes and behaviour in HEHP practices as well as their own perceptions about their needs of HE-training.

## 2.5. Data collection and analysis

General approval for the study was obtained from the Coordinator of the SRS-VR by a formal letter. In addition, and for courtesy, the Nurse-in-Chief of every Health Centre of the SRS-VR was contacted by telephone.

The questionnaires were personally delivered to and collected from each Health Centre, except 3 questionnaires which were posted by mail due to the great distance of the Health Centre. Of the total 211 questionnaires sent out, 152 were collected, corresponding to 72.0% of the population.

Questionnaire data were introduced and treated in a specially set up database of the SPSS program. Analysis of frequencies, means, modes and standard deviation were the statistical parameters used to describe the population. Both *t*-test of Student and  $\chi^2$  were used to estimate statistical differences between samples, and so to confirm or reject the postulated hypothesis. Differences between samples were assumed when  $P < 0.05$ .

For the statistical tests, it was assured that the sample distribution was normal and the comparable sample variances were not significantly different, by using the Shapiro-Wilk and Levene tests, respectively (Hill e Hill, 2000; Guimarães e Cabral, 1998).

All interviews were conducted in private, tape-recorded and transcribed. Data analysis of transcripts comprised four phases: (i) coding the data – by reading carefully a few times each interview text, from the beginning to the end, in order to obtain the general view of each interviewee in order to identify recurrent ideas, or patterns, among interview texts; (ii) generating categories – such emerging patterns were labelled with corresponding codes for categories (iii) enriching the categories – by reading again all interview texts to find the passages that could be included in each category, (iv) writing a descriptive and interpretative

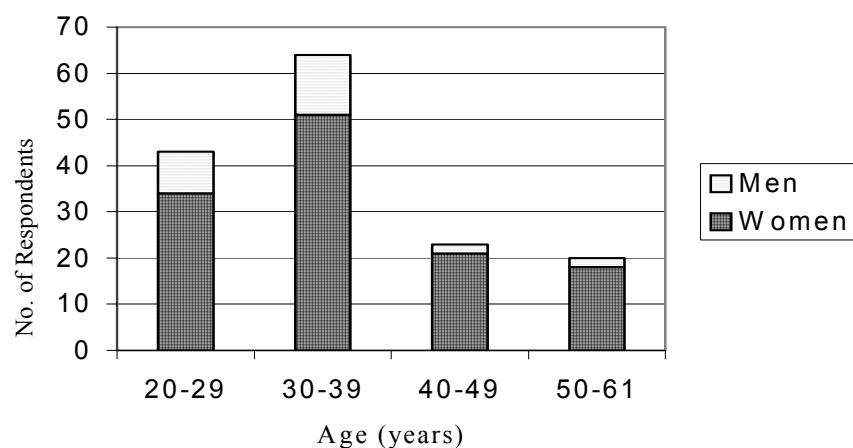
draft – by analysing and integrating the text passages of each category (Drever, 1995; Marshall and Rossman 1999; Dubouloz, 1999; Amado, 2000; Carvalho 2000).

### 3. Results and discussion

#### 3.1. Sample characterization

##### *Questionnaire respondents' age and gender*

The sample was mostly female: 126 (82.9%) were women and 26 (17.1%) were men (Fig.1). Most of respondents were between 30-39 years old, with 64 nurses (42.1%), and the smallest age class was the one between 50-61 years old, with only 20 nurses (13.2%) (Fig.1). The age mean was 36.1 years old, where the youngest one was 21years old and the oldest one 61 years old. The mode was multiple: 27, 28 and 30 years old.



**Fig. 1** – Sample characterisation according to gender and age.

It was expected to have a majority of women in this sample as the nurse profession is one of the most typical examples of the conjugation between gender and work (Fonseca, 1996). The fact that the majority of nurses were included in the range of 30-39 years old and not within 20-29 years old (as it was expected) may be due to the fact that the fresh nurses tend to look for jobs at hospitals where they can work in turns of duty and earn higher payments.

##### *Questionnaire respondents' academic graduation, professional position and time of PHC activity*

Only few (7.2%) nurses had the ancient “medium” training course (“*Curso geral de enfermagem*” – 3 years); nearly half of the nurses (46.1 %) had their first high school degree (“*Bacharelato*” – 3 years) and the other half (46.1%) had a second high school degree (“*licenciatura*”- a total of 5 years). Only one nurse (0.7%) had a master course.

The sample was composed of nurses included in the four professional categories: “Nurses” (32.2%), “Graduate nurses” (49.3%), “Specialist nurses” (11.2%) and “Nurses-in-Chief” (7.3%). It was not expected that Graduate nurses were in higher proportion than simple Nurses, but these results were, however, in agreement with their age distribution (Fig.1). In fact age and professional position must be in accordance since it is required 6 years of Nurse experience to access to the Graduate nurse position.

The mean time of professional activity in Primary Health Care (PHC) of this sample was  $10.4 \pm 8.0\%$  years and the mode was 5 years. The majority of the respondents (54.6%) had less than 9 years of PHC experience and only a few (12.5%) were within the range of 20-35 years of PHC experience.

### *Interviewees*

The six interviewees were women, between 33 and 43 years old. Four of them had the “*licenciatura*” degree and two a master course. They were either “Graduate nurse” or “Nurses-in-Chief” and they had 10 to 14 years of professional activity.

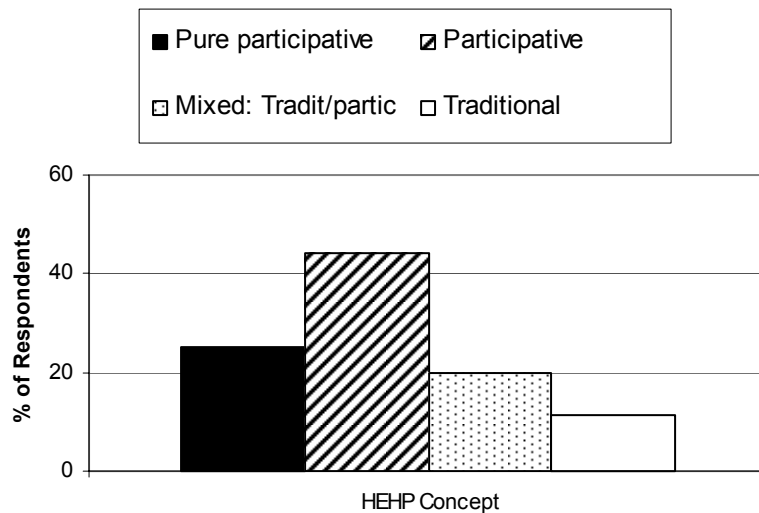
### **3.2. Nurses’ HEHP conceptions**

Out of 12 items of a question, nurses were asked to select 5 items that they would find more associated to their own concept of health education and health promotion (HEHP). Some sentences were associated to “traditional” practices of health education and other ones were more associated to the “participative” perspective of HEHP. We assumed as “traditional” sentences those including the following notions: lecture/ transmission of knowledge, passive target public, nurse leadership, occasional teaching, without community perspective (Tones & Tilford, 1994; Navarro, 1998), whereas “participative” sentences were the ones giving the notion of: proactive participation, interactive process, patient/client’ needs, patient/client’ thinking and patient/client’ acting by him/herself, development of patient/client self-esteem and self-empowerment, community participation and community empowerment (Tones & Tilford, 1994; Ewles & Simnett, 1999; Carvalho, 2002).

Thus, it was assumed that the whole question was answered as “traditional” when out of the 5 items selected, 4 or 5 of them had the “traditional” notion. Inversely, it was assumed as a “participative” question when 4 or 5 of the items had the “participative” notion. “Pure traditional” or “pure participative” was assumed only when all the 5 items had the “traditional” notion or the “participative” notion, respectively. Finally, it was assumed as a mixed question if 2 or 3 of the items had the “traditional” notion and 3 or 2 the “participative” notion.

The majority of nurses (69.1%) expressed the a general participative conception of HEHP, as 25.0% were “pure participative” and 44.1% were “participative”. One third of the nurses (30.9%) showed a general traditional perspective of HEHP, as 11.2% expressed the “pure traditional” conception and 19.7% the “traditional” conception of HEHP (Fig.2).

Like the questionnaire responders, the interviewed nurses also affirmed to have a “participative” conception of HEHP. However as they spoke during the interviews they showed a quite normative discourse, centred in the knowledge transmission and in the typical behaviour change, i.e. the “traditional” concept of HEHP. A reason for this discrepancy between questionnaires and interviews may be that the former tends to provide answers socially acceptable or “politically correct”. Another influent factor may be the fact that in the questionnaire the sentences were already there and the responders had only to select the ones they wanted whereas in the interviews the nurses had to construct their own phrases using their own vocabulary to express their conceptions. Therefore it seems that the interviews give information more genuine, more authentic.

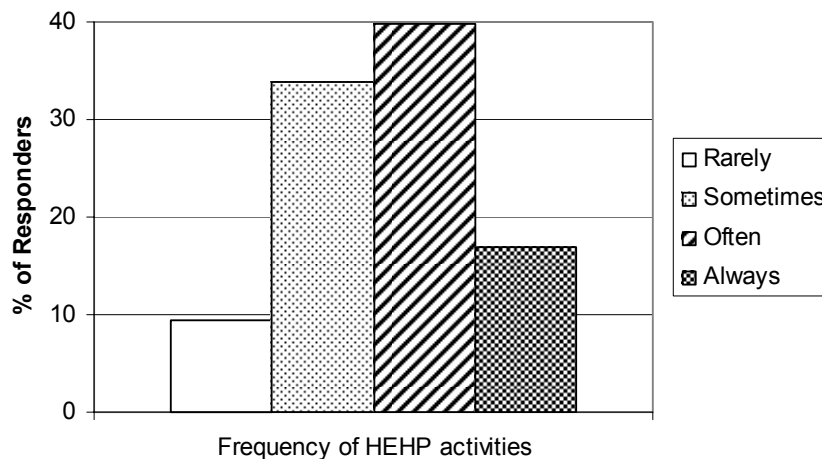


**Fig. 2** – Nurses’ conceptions about health education and health promotion.

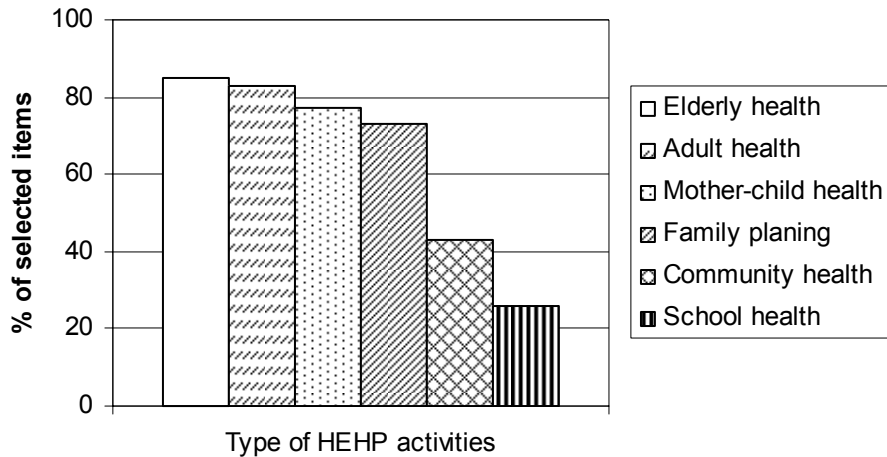
Similar difficulties in expressing concepts associated to HEHP good practices have also been demonstrated in similar studies carried out in Lisbon (Sousa, 1995) or in Brasil (Rosso & Collet, 1999). All these results indicate that in general there is an insufficient training in the theoretical approach to HEHP good practices.

### 3.3. Nurses’ HEHP practices

About 88% of nurses said that they had carried out HEHP practices. Of these positive responders some have done it “sometimes” (33.8%), “often” (39.8%) and “always” (16.9%) (Fig.3). Such HEHP activities concerned most of the PHC specific areas, although *community health* (43%) and *school health* (26%) were the ones less frequent (Fig.4).



**Fig. 3** – Frequency of nurses’ activities on health education and health promotion.

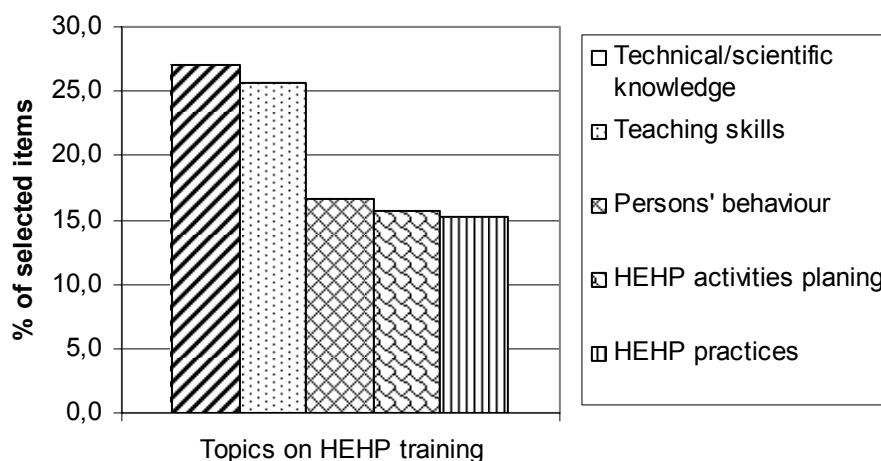


**Fig. 4** – Type of nurses' activities on health education and health promotion.

It is interesting to point out that the HEHP activity areas they work more (elderly and adults – Fig.4) were also the activities that they declaree they like less (data not shown). The interviewees confirmed, in their speech, that *community health* and *school health* were the areas of less HEHP activity carried out by nurses, and where they felt less confident to work in. This is an important issue since the most appropriate settings to develop HEHP are the schools and the local community (Carvalho, 2002; 2004).

### 3.4. Nurses' perception about HE-training needs

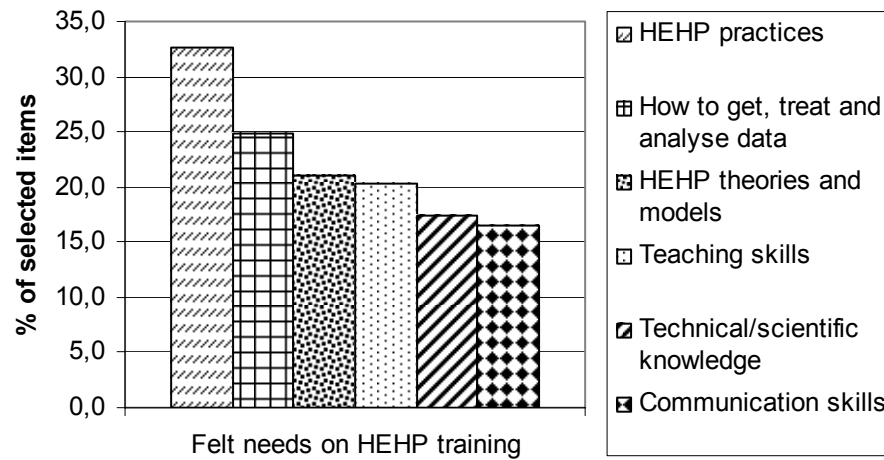
The great majority of nurses (78.3%) stated they had done continuous HE-training in the last 5 years. The topics mostly developed by them in their HE-training were *technical/scientific knowledge* (27.0%) and *teaching-learning processes* (25.6%) (Fig.5).



**Fig. 5** – Topics on health education and health promotion training.

More than 90% of the nurses said they felt the need of more HE-training, and when asked about the specific topics they needed, they mentioned *information about HEHP practices*

(32.6%) and *information about how to collect, to treat and to analyse data* (24.8%). In contrast, the *acquisition of communication skills* was the lowest felt need (16.5%) (Fig.6).



**Fig. 6** – Nurses’ felt needs on health education and health promotion training.

These results show that nurses’ most relevant felt needs were associated to their actual practices in HEHP, *i.e.* how to plan, how to implement the activities and how to collect and treat data. Furthermore, results demonstrate a gap between topics of HE-training courses (Fig.5) and nurses’ felt needs (Fig.6). Moreover, the theoretical approach on HEHP emerged from the interviews as an important factor to contextualise and implement HEHP activities. The need for an increase in both theoretical and practical approaches in HE-training has also been mentioned by Rivers *et al.* (1998) who further suggest that it should be applied not only in continuous HE-training but also in initial training.

### 3.5. Hypothesis verification

Hypotheses were produced as a function of nurses’ continuous HE-training and their felt needs for HE-training, which is the aim of the present study.

#### ***Continuous HE-training versus HE conceptions and practices frequency***

Comparing the group of nurses that have carried out continuous HE-training and the group of those that have not: no significant differences ( $P > 0.05$ ;  $\chi^2$  test) were found in relation to their HEHP concept (see Fig.2: “participative” vs “traditional”); however, significant differences between these groups were found ( $P < 0.05$ ; *t*-test) in relation to their frequency of HEHP activities (see Fig.3).

In other words, the statistical tests indicated that our hypothesis A can be accepted:

- A) There is no association between nurses’ continuous HE-training and their HE conceptions.

In contrast, our hypotheses B must be rejected:

- B) There is no association between nurses’ continuous HE-training and their frequency of HEHP practices.

These results suggest that HE-training is a good tool to promote HEHP activities by nurses but not so much to help to change their concept about health education and health promotion.



### ***HE-training felt needs versus HEHP practices frequency and continuous HE-training***

Comparing the group of nurses that express HE-training felt needs and the group that do not express so: no significant differences ( $P>0.05$ ;  $t$ -test) were found in relation to the frequency of their HEHP practices; however, significant differences between these groups were found ( $P<0.05$ ;  $\chi^2$  test) in relation to their continuous HE-training.

Therefore, the statistical tests indicated that our hypothesis C can be accepted:

- C) There is no association between nurses' HE-training felt needs and their frequency of HEHP practices;

In contrast, our hypotheses D must be rejected:

- D) There is no association between nurses' HE-training felt needs and their continuous HE-training.

These results indicate that nurses that have more HE-training are also those that express more HE-training felt needs, suggesting that HE-training contributes to make nurses more aware of their needs for HE-training in order to feel more confident in the implementation of HEHP practices.

### ***Nurses' professional position and time of PHC activity versus continuous HE-training***

No significant differences ( $P>0.05$ ;  $\chi^2$  test) were found between nurses' professional position and their continuous HE-training. Similarly, no differences ( $P>0.05$ ;  $\chi^2$  test) were found between nurses' time of PHC professional activity and their continuous HE-training.

Thus, the statistical tests indicated that both our hypothesis E and F can be accepted:

- E) There is no association between nurses' professional position and their continuous HE-training;
- F) There is no association between nurses' time of PHC professional activity and their continuous HE-training.

Overall, these results indicate that nurses' continuous HE-training was not associated to their professional position, to their time of primary health care activity or to their conceptions of health education and health promotion as far as "participative" or "traditional" perspectives are concerned. However, nurses' continuous HE-training seems to promote nurses' motivation for implementing HEHP practices more frequently as well as for expressing felt needs of more HE-training.

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