



Communication Study

Emotions in primary care: Are there cultural differences in the expression of cues and concerns?



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ABSTRACT

Objective: This study compared native-Dutch and Turkish-Dutch patients' expressions of emotional cues/concerns and GPs' responses to these cues/concerns. Relations between patient's cues/concerns and GPs' perceptions of the patient's health complaint were examined too.

Methods: 82 audiotaped encounters with native-Dutch and 38 with Turkish-Dutch GP patients were coded using the VR-CoDES and VR-CoDES-P. Patients filled out a survey before each consultation to assess their cultural identification, Dutch language proficiency and health-related variables. GPs filled out a survey after each consultation to assess their perceptions of the patient's health complaint.

Results: Turkish-Dutch patients expressed more cues than native-Dutch patients, which was explained by higher worries about their health and worse perceived general health. GPs responded more often with space-providing responses to Turkish-Dutch patients compared to native-Dutch patients. Turkish-Dutch patients' cue expression strongly influenced GPs' perceptions about the presence of psychosocial problems.

Conclusion: Migrant patient-related factors influence the amount of emotional cue expression in primary care. GPs perceive these cues as indicating the presence of psychosocial problems and provide space for patients to elaborate on their emotional distress.

Practice implications: GPs should be trained in using more affective communication techniques to enhance elicitation of the underlying reasons for migrant patients' enhanced emotional cue expression.

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1. Introduction

Patients' expressions of emotions and physicians' responses to these emotions are a core element of the medical communication process [1]. Worries related to patients' health complaints, psychosocial problems and life issues are important reasons to visit a physician and hence, are regularly brought into the medical consultation [2,3]. Patients might voice their negative feelings explicitly, so-called concerns, but oftentimes, they use more indirect hints to refer to underlying emotions, so-called cues or clues [4]. Previous research has indicated that expressing emotions is related to enhanced emotion-regulation, which in turn might reduce stress and have beneficial effects on patients' wellbeing [5,6]. In addition, physicians who respond to patients' emotions in

an open and empathic manner can reduce patients' level of distress and increase levels of treatment adherence [7,8].

Unfortunately, physicians often react in a problem-solving manner to patients' emotion expression and generally respond better to the informational content of cues than to their affective content [9,10]. In medical encounters with migrant patients, dealing with emotions can be an even more challenging task. Cultural differences in emotional display rules, health and illness beliefs and communication styles might make it difficult for physicians to identify and adequately respond to migrant patients' emotion expressions [11–14]. Previous studies have indeed shown that physicians behave less affective toward migrant patients and perceive them as less emotionally expressive than patients belonging to the dominant culture [15]. There is less social talk in intercultural medical encounters, and less empathy and emotional engagement as compared to intracultural medical encounters [16–19]. Consequently, the establishment of rapport and mutual understanding, important prerequisites of delivering good quality health care, is often hard to achieve in consultations with migrant patients [20].

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Although the above-mentioned studies have been valuable in gaining more insight into cultural differences in the dynamics of the affective communication process, there is a dearth of research looking specifically at possible differences between native-born and migrant patients' expressions of emotions and physicians' responses to their emotions. Compared to the native-Dutch population, migrant patients in the Netherlands visit their general practitioner (GP) more often [21], which might partly reflect a higher prevalence of mental distress and psychosocial problems in some ethnic minority populations. Indeed, prevalence rates of depression and anxiety disorders are higher among Turkish-Dutch patients than among native-Dutch patients [22]. Whether the higher prevalence of these psychological problems is reflected in more emotion expression among ethnic minority patients compared to native-Dutch patients during consultations in general practice is unknown. Therefore, the aim of the present study was to investigate whether there are differences between native-Dutch and Turkish-Dutch patients' expression of emotional cues and concerns as well as GPs' responses to these cues and concerns, by making use of the *Verona Coding Definitions of Emotional Sequences* ([23,24]; VR-CoDES), a consensus-based instrument that has been successfully applied in several health contexts [25–27].

The applicability of the VR-CoDES to consultations with migrant patients has been shown in two previous studies [26,27]. However, these studies either did not compare ethnic minority patients' emotion expression with those of the culturally dominant group [27], or did use a different healthcare setting than general practice (i.e. hospitals) [26]. The present study will address those gaps by comparing native-Dutch patients' with Turkish-Dutch patients' expression of emotional cues/concerns and GPs' responses. Additionally, we investigated whether the possible effect of patients' ethnic background on emotion expression is influenced by a number of patient-related characteristics, such as patients' cultural identification, their perceived general health, and their worries about the current health complaint. Previous research has shown that these variables might be related to the amount of emotional cues/concerns patients express [4,27,28], but it is unknown whether they interact with patients' ethnic background.

We also examined the relation between patients' expression of emotional cues/concerns and GPs' perceptions about the patient's health complaint, because it is possible that physicians' lack of affective behavior toward migrant patients can be explained by the fact that they insufficiently pick up migrant patients' worries. As mentioned above, cultural differences in emotional display rules could make it difficult for physicians to identify migrant patients' emotions. Hence, we investigated whether there are differences between native-Dutch and Turkish-Dutch patients in the relation between their expression of emotional cues/concerns and a number of GPs' perceptions, among which the extent to which they think psychosocial problems were present during the consultation and the perceived seriousness of the patient's health complaint.

In sum, we investigated: (1) differences in emotion expression between native-Dutch and Turkish-Dutch patients, (2) differences in GPs' responses to emotional expression between native-Dutch and Turkish-Dutch patients, and (3) differences in relationships between native-Dutch and Turkish-Dutch patients and GPs' perceptions about the patient's health complaint.

2. Methods

2.1. Participants and procedure

Six GP practices with eleven GPs (seven men, four women) in three multicultural cities in the Netherlands participated. Patients who had an appointment with the GP for themselves and were able

to read in Dutch or Turkish, or were accompanied by someone who could read in Dutch or Turkish, were asked to participate by research assistants during three to ten days per practice. Patients who gave their informed consent filled out a questionnaire (available in Dutch and Turkish) before the consultation. Subsequently, each consultation was audio taped by the GP and after each consultation, the GP filled out a short questionnaire about the patient. Of all 377 eligible patients, 256 consented to participate (68%); 41 consultations were not audio taped properly and 52 questionnaires were not returned or contained too many missing values. In addition, 12 patients were Western immigrants and 31 were non-Western migrants from other origin than Turkey and were therefore excluded from analyses. Hence, the final sample consisted of 120 patients (native-Dutch $n = 82$, Turkish-Dutch $n = 38$; 59% of all patients who consented). The study was approved by the ethical committee of the Amsterdam School for Communication Research.

2.2. Measures

2.2.1. Patient and GP questionnaire

Patients' ethnic background was based on the ethnicity definition of the Dutch Central Bureau of Statistics [29]. Respondents with both parents born in the Netherlands were categorized as native-Dutch and respondents who were born in Turkey and/or have at least one parent born in Turkey were categorized as Turkish-Dutch. Cultural identification was measured by Stevens et al.'s ethnic identity measure [30], by asking patients to indicate the extent to which they feel they belong to the Dutch culture and the Turkish culture on a 5-point scale, ranging from (1) *totally disagree* to (5) *totally agree*. Because high correlations have been reported between GPs', patients' and researchers' assessment of migrant patients' language proficiency [31], patients' Dutch language proficiency was measured by a single self-report item assessing the extent to which they think they have command of the Dutch language (5-point scale, ranging from (1) *not at all* to (5) *excellent*).

Other variables measured were patients' gender, age, educational level, whether the patient had company during the consultation, worries about their current health complaint, and perceived general health. The two latter variables were assessed with a single item on a 5-point Likert scale, the first ranging from (1) *not worried at all* to (5) *extremely worried*, and the second ranging from (1) *excellent general health* to (5) *poor general health*.

GPs filled out a short questionnaire after each consultation, assessing their perceptions of the extent to which they think psychosocial problems were present during the consultation, the extent to which they think the patient's health complaint is serious, and the extent to which they think the patient's health complaint is troublesome. In addition, GPs had to indicate the extent to which they knew the patient. All variables were measured with a single item on a 5-point Likert scale, ranging from (1) *not at all* to (5) *very*.

2.2.2. Coding patients' emotional cues/concerns and GPs' responses

The *Verona Coding Definitions of Emotional Sequence* (VR-CoDES and VR-CoDES-P) [23,24] was used to code patients' cues/concerns and GPs' responses. Because results of a previous study showed differences between Turkish-Dutch patients who are accompanied by a family member who interprets for them during the consultation and Turkish-Dutch patients who visit their GP alone in amount of emotional cue expression [31], only patients' utterances were coded; utterances of accompanying persons were not coded. Concerns are clear and unambiguous expressions of unpleasant emotions that are explicitly verbalized, while cues are verbal or nonverbal hints suggesting an underlying unpleasant

emotion that lacks clarity. Cues are divided into six subcategories: *cue a* refers to vague or unspecified words to describe emotions, *cue b* refers to verbal hints to hidden concerns, *cue c* refers to words or phrases which emphasize physiological or cognitive correlates of unpleasant emotional states, *cue d* refers to neutral expressions that mention issues of potential emotional importance which stand out from the narrative background, *cue e* refers to a patient elicited repetition of a previous neutral expression, and *cue g* refers to a clear expression of an unpleasant emotion which occurred in the past. Due to the use of audiotapes, non-verbal cues (i.e. *cue f*) were not coded.

GPs' responses were coded according to the following five categories: non-explicit reducing space (NR), non-explicit providing space (NP), explicit reducing space (ER), explicit providing space content (EPC) and explicit providing space affect (EPA). NR responses are defined as any response which does not explicitly mention either the content or the emotion of the cue or concern and reduces space for further disclosure; NP responses are defined as any response which does not refer explicitly to the content or the emotion of the cue or concern and provides space for further disclosure; ER responses are defined as any response which refers explicitly to the content or emotion of the cue or concern and reduces space for further disclosure; EPC responses are defined as any response which refers explicitly to the content of the cue or concern and provides space for further disclosure; EPA responses are defined as any response which refers explicitly to the affect of the cue or concern and provides space for further disclosure.

All consultations were transcribed verbatim from audiotape. The Turkish fragments were written in Turkish and translated into Dutch by a Turkish bilingual research assistant. Transcripts were all coded by the first author (BS), who is experienced in working with the VR-CODES. To assess inter-rater reliability, the second author (SS), who received formal training in the use of this coding instrument, recoded four randomly selected consultations with native-Dutch patients and three with Turkish-Dutch patients. Cohen's Kappa was 0.61.

2.3. Data analysis

Differences between patient groups were assessed with independent samples *t*-tests or Chi²-tests. Differences within patient groups were assessed with paired samples *t*-tests. Relations between patient-related variables and amount of cues and concerns were assessed with Pearson correlation coefficients. Multilevel analyses (ANCOVAs) using linear mixed models with group as fixed effect and GP as random effect were performed to assess differences between patient groups on amount of cues/concerns. Patients' Dutch cultural identification, perceived general health, and worries about their current health complaint were included in the model to test for possible main and interaction effects with patients' ethnic background on cues/concerns. Differences between GPs' responses were assessed with independent samples *t*-tests and relations between patients' cues/concerns and GPs' perceptions were assessed with linear regression analyses.

3. Results

3.1. Patient and consultation characteristics

Patient characteristics are shown in Table 1. 79% of Turkish-Dutch patients was born in Turkey, 18.4% was born in the Netherlands with both parents born in Turkey and 2.6% was born in the Netherlands with one parent born in Turkey. Native-Dutch patients were older ($M_{Dutch} = 48.6$ $SD = 16.8$, $M_{Turkish} = 37.8$,

Table 1
Sample characteristics.

	Native-Dutch (<i>n</i> = 82)	Turkish-Dutch (<i>n</i> = 38)
Age**		
M (SD)	48.6 (16.8)	37.8 (14.3)
Gender (%)		
- Male	27 (32.9%)	19 (50%)
- Female	55 (67.1%)	19 (50%)
Educational level (%)		
- Low	34 (41.5%)	10 (27.0%)
- Intermediate	31 (37.8%)	21 (56.8%)
- High	17 (20.7%)	6 (16.2%)
Perceived general health**	3.05 (0.88)	3.53 (0.91)
Worries health complaint***	1.9 (0.7)	2.8 (1.2)
M (SD)		
Dutch language proficiency	NA	3.5 (1.2)
M (SD)		
Identification Dutch Culture***	4.8 (0.6)	3.2 (1.1)
M (SD)		
Identification Turkish culture	NA	3.8 (1.1)
M (SD)		
Company during consultation		
- Alone	63 (79.7%)	25 (67.6%)
- Partner	9 (11.4%)	3 (8.1%)
- Child	6 (7.6%)	5 (13.5%)
- Parent	1 (1.3%)	1 (2.7%)
- Other	0 (0%)	3 (8.1%)
Psychosocial problems (GP)		
M (SD)	2.1 (1.2)	2.0 (1.3)
Seriousness health complaint (GP)		
M (SD)	1.9 (0.9)	2.0 (1.0)
Troublesomeness health complaint (GP)		
M (SD)	3.5 (1.1)	3.3 (1.1)
Patient known by GP (GP)		
M (SD)	3.1 (1.3)	2.9 (1.3)

** $p < .01$.

*** $p < .001$.

$SD = 14.3$; $t(118) = 3.45$, $p = .001$), less worried about their current health complaint ($M_{Dutch} = 1.9$ $SD = 0.7$, $M_{Turkish} = 2.8$ $SD = 1.2$; $t(114) = -4.86$, $p < .001$) and perceived their general health as better ($M_{Dutch} = 3.1$ $SD = 0.9$, $M_{Turkish} = 3.5$ $SD = 0.9$; $t(113) = -2.68$, $p = .009$) than Turkish-Dutch patients. Turkish-Dutch patients reported less identification with Dutch culture than native-Dutch patients ($M_{Turkish} = 3.2$ $SD = 1.1$, $M_{Dutch} = 4.8$ $SD = 0.6$; $t(108) = 9.28$, $p < .001$) and identified more with Turkish culture than with Dutch culture ($M = 3.8$ $SD = 1.1$, $M = 3.2$ $SD = 1.1$; $t(29) = 2.2$, $p = .035$). Their Dutch language proficiency was relatively high ($M = 3.5$ on a 1–5 scale). The groups did not differ on gender, educational level and company present during the consultation.

According to the GPs, there were no differences between the groups in the presence of psychosocial problems, the seriousness and troublesomeness of the health complaint and the extent to which the patient is known by the GP.

Mean consultation length in minutes was 10.4 min ($SD = 4.2$) for native-Dutch patients and 11.1 min ($SD = 5.9$) for Turkish-Dutch patients. The difference was not statistically significant.

3.2. Differences in patients' cues/concerns

Mean number of cues within the total sample was 7.44 per consultation ($SD = 6.19$; range 0–42) and mean number of concerns was 0.78 per consultation ($SD = 1.60$; range 0–10). 88.3% ($n = 106$) of all consultations contained at least one cue, and 35.8% ($n = 43$) of all consultations contained at least one concern. The Turkish-Dutch group expressed significantly more cues in total ($M_{Turkish} = 8.7$ $SD = 10.7$, $M_{Dutch} = 5$ $SD = 5.0$; $t(118) = -2.53$, $p = .013$), more cues c ($M_{Turkish} = 1.1$ $SD = 2.1$, $M_{Dutch} = 0.3$ $SD = 0.6$; $t(118) = -3.23$, $p = .002$), and more cues d ($M_{Turkish} = 1.6$

Table 2

Mean number of patients' cues/concerns.

	Native-Dutch (n = 82) M (SD)	Turkish-Dutch (n = 38) M (SD)
Cue a	0.95 (1.71)	1.36 (2.59)
Vague or unspecified words to describe negative emotions		
Cue b	2.92 (2.96)	4.21 (4.78)
Verbal hints to hidden concerns		
Cue c ⁺	0.27 ((0.65)	1.08 (2.07)
Words or phrases which emphasize physiological or cognitive correlates of unpleasant emotional states		
Cue d ⁺	0.55 (1.0)	1.55 (3.24)
Neutral expressions that mention issues of potential emotional importance which stand out from the narrative background		
Cue e	0.28 (0.53)	0.39 (0.72)
A patient elicited repetition of a previous neutral expression		
Cue g	0.07 (0.31)	0.05 (0.32)
A clear expression of an unpleasant emotion which occurred in the past		
Total cues ⁺	5.05 (5.03)	8.66 (10.65)
Total concerns	0.71 (1.44)	0.92 (1.92)
Cues/concerns total ⁺	5.76 (5.71)	9.58 (12.1)

⁺ $p < .05$.⁺⁺ $p < .01$.

$SD = 3.2$, $M_{Dutch} = 0.5$ $SD = 1.0$; $t(118) = -2.56$, $p = .012$) than the native-Dutch group (see Table 2). No differences in amount of concerns emerged between the two patient groups.

For the total sample, it was found that the more patients worried about their current health complaint, the more cues ($r(114) = .28$, $p = .002$) and concerns ($r(114) = .27$, $p = .003$) they expressed. In addition, the less patients identified with Dutch culture, the more cues they expressed ($r(108) = -.34$, $p < .001$), and the worse patients perceived their general health to be, the more cues they expressed ($r(113) = .26$, $p = .006$). No significant relations were found between amount of patients' cues and concerns and their language proficiency, gender, age or educational level.

Subsequent multilevel analyses showed no significant main effect of patient's ethnic background on amount of cues, but a significant main effect emerged of worries about their current health complaint ($F(83,4) = 5.20$, $p = .001$), as well as a main effect of patients' perceived general health ($F(83,4) = 3.27$, $p = .015$). Hence, the more patients worried about their current health complaint, and the lower they perceived their general health to be, the more cues they expressed. No main effect was found for patients' identification with Dutch culture on amount of cues, and no significant interaction effects between patient's ethnic background and these three patient-related variables emerged.

The only main effect that emerged on amount of concerns was patients' worries about their current health complaint ($F(83,4) = 5.47$, $p = .001$). Thus, patients who worried more about their current health complaint expressed more concerns. No other significant main or interaction effects with patients' ethnic background and patient-related variables on amount of concerns emerged.

Table 4

Relations between patients' cues/concerns and GPs' perceptions.

Dependent variables	Predictors	Native-Dutch (n = 82)			Turkish-Dutch (n = 38)		
		B	p-Value	Adjusted R ²	β	p-Value	Adjusted R ²
Psychosocial problems	Cues	0.36	.001	0.28	0.98	.000	0.60
	Concerns	0.33	.002		−0.30	.062	
Troublesomeness health complaints	Cues	0.46	.000	0.30	0.46	.047	
	Concerns	0.23	.034		0.01	.953	
Seriousness health complaint	Cues	0.15	.224	0.01	0.44	.054	0.20
	Concerns	0.07	.570		0.07	.738	

3.3. GPs' responses

Overall, GPs' responses to patients' cues/concerns were significantly more often space providing ($M = 4.91$ $SD = 7.11$) than space reducing ($M = 1.78$ $SD = 2.59$; $t(98) = 4.88$, $p < .001$). There was no significant difference between total explicit ($M = 3.09$ $SD = 4.38$) and non-explicit responses ($M = 3.72$ $SD = 5.99$; $t(98) = 1.07$, $p = .287$). As shown in Table 3, GPs reacted marginally more often with explicit space providing content responses ($M_{Turkish} = 2.45$ $SD = 3.96$, $M_{Dutch} = 1.43$ $SD = 1.79$; $t(118) = -1.95$, $p = .054$) and non-explicit space providing responses ($M_{Turkish} = 4.18$ $SD = 7.13$, $M_{Dutch} = 2.38$ $SD = 3.39$; $t(118) = -1.88$, $p = .062$) to Turkish-Dutch patients' cues/concerns as compared to native-Dutch patients' cues/concerns.

3.4. Relation between patients' cues/concerns and GPs' perceptions

As shown in Table 4, the amount of patients' cues had a stronger influence on GPs' perceptions about the presence of psychosocial problems, the extent to which the health complaint was deemed

Table 3

GPs' responses to patients' cues and concerns.

	Native-Dutch (n = 82) M (SD)	Turkish-Dutch (n = 38) M (SD)
Non-explicit reducing space	0.73 (1.32)	1.18 (1.78)
Non-explicit providing space ⁺	2.38 (3.39)	4.18 (7.13)
Explicit reducing space	0.82 (1.21)	1.13 (1.44)
Explicit providing space content ⁺	1.43 (1.79)	2.45 (3.96)
Explicit providing space affect	0.39 (0.91)	0.45 (1.39)

⁺ $p < .10$.

serious and the extent to which the health complaint was deemed troublesome than the amount of patients' concerns for both patient groups. For the Turkish-Dutch patients, the expression of cues exerted the strongest influence on GPs' perceptions about the presence of psychosocial problems ($\beta = 0.98$), while for native-Dutch patients, the amount of cues had the strongest influence on GPs' perceptions about the troublesomeness of the health complaint ($\beta = 0.46$). Hence, depending on patient's ethnic background, patients' expression of cues influenced different GP perceptions to a different extent.

4. Discussion and conclusion

4.1. Discussion

Although previous research has shown that there is less affective communication in medical encounters with migrant patients [16–19], results of the present study indicate that Turkish-Dutch GP patients do not express fewer emotional cues than native-Dutch patients. On the contrary, Turkish-Dutch patients uttered almost twice as many emotional cues compared to native-Dutch patients. Their higher utterance of cues referring to physiological or cognitive correlates of negative emotional states as compared to native-Dutch patients might be explained by higher prevalence rates of depression and anxiety disorders among Turkish-Dutch migrants [22], and by cultural differences in illness representations [32]. That is, they might have a tendency to communicate psychological distress by somatizing their concerns [e.g. 33], which could also explain why the GPs did not indicate a higher presence of psychosocial issues among Turkish-Dutch patients as compared to the native-Dutch group. However, the relation between culture and the clinical representation of depression and anxiety is not that clear-cut [34]. Hence, further research is needed to gain more knowledge on how Turkish-Dutch patient's cultural background influences the communication about mental distress in general practice.

Our results further indicate that it is not patients' ethnic background as such influencing how many emotional cues they express, but more importantly, the extent of worry about their health complaint and how they perceive their general health to be. No influence of identification with Dutch culture was found, which is in accordance with a previous study on the influence of patient's cultural background on amount of emotional cues/concerns in primary care [27]. These results point to the importance of clearly distinguishing between the possible influence of patients' ethnic and cultural background as such and factors associated with migrant patients' health status. That is, health-related factors associated with being a migrant, such as lifestyles and psychosocial issues, are known to be related to health-related outcomes [e.g. 35], and might exert a more important influence on patients' emotion expression than their ethnic background as such. Hence, future research on cultural differences in medical communication should take into account variables that are associated with migrant patients' health, and not use patient's ethnic background as a catch-all to explain possible differences.

Patients' worries about their current health complaint exerted the strongest influence on the amount of emotional cues/concerns they expressed during the GP consultation, irrespective of their ethnic background. This result corresponds with previous studies that found that the higher GP patients' level of emotional distress, the more emotional cues they expressed [36,37]. As worry is one of the central features of anxiety and may also play a central role in depression [38], this again raises the question whether the Turkish-Dutch patients' higher levels of worry compared to the native-Dutch patients might possibly be related to underlying anxiety and/or depression. As mentioned before, prevalence rates

of anxiety and depressive disorders are higher among the Turkish-Dutch compared to the native-Dutch population [22]. Thus, migrant patients' worries about their health might possibly be related to underlying mental distress, leading to more emotional cue expression during the medical encounter. More research is needed to assess whether there is indeed a relation between Turkish-Dutch patients' self-reported worries about their health complaint and underlying psychological distress.

GPs responded more often with non-explicit and explicit space providing responses to Turkish-Dutch patients than to native-Dutch patients. In addition, Turkish-Dutch patients' emotional cues expression strongly influenced GPs' perceptions about the presence of psychosocial problems. This might again indicate that the Turkish-Dutch patient group might suffer from underlying psychological distress, which is adequately picked up by the GPs through the type and amount of cues these patients express. By reacting with space providing utterances and thereby giving the patient room for further disclosure, the GPs probably try to gain a deeper understanding of the patients' complaints. Notwithstanding the fact that this result as such is positive in light of previous findings indicating less affective communication toward migrant patients [e.g. 15], GPs' responses are still seldom directed toward the affective content of patients' cues. Hence, their space providing reactions might be insufficient to build rapport and engender a feeling of emotional engagement from the side of the patient, in particular given the fact that Turkish-Dutch patients place a lot of importance on a warm and affective relation with their GP to be able to feel sufficiently comfortable to open up during the medical communication process [39]. Without these ingredients real (mutual) understanding is hard to achieve, and the quality of care for migrant patients will remain suboptimal [20].

4.2. Study limitations

In contrast with previous research [26,27], the results of this study did not show an influence of migrant patients' Dutch language proficiency on their expression of emotional cues/concerns. These contradictory results can probably be explained by the fact that the Turkish-Dutch patient in this study had relatively high levels of Dutch language proficiency, possibly because a large proportion did receive at least intermediate levels of education. Hence, future research should include the harder-to-reach Dutch migrant populations (i.e. lower educated patients with lower Dutch language proficiency) in order to investigate the influence of their language proficiency on the expression of emotional cues/concerns.

In addition, no significant interaction effects between patients' ethnic background and cultural identification, perceived general health and their worries on emotional cues/concerns emerged in this study. Given the relatively small sample size of this study, this might be caused because of lack of statistical power. Hence, future research with larger, more heterogeneous migrant samples is needed to establish possible interaction effects between patients' ethnic background and culture- and language related factors.

4.3. Conclusion

Turkish-Dutch patients express more emotional cues than native-Dutch patients, which in turn was dependent on higher worries and lower perceived general health as compared to native-Dutch patients. As a consequence, GPs seem to be aware of the presence of psychosocial problems among Turkish-Dutch patients, reflected in the finding that there was a strong relation between Turkish-Dutch patients' amount of cues and subsequent GP perceptions about the presence of psychosocial problems. Because of the small sample size, findings should be replicated among

larger, more heterogeneous migrant patient groups. In addition, to gain more understanding of the influence of culture- and language-related factors on both emotion expression and its outcomes, more research is needed on antecedents and health-related consequences of migrant patients' emotions in medical encounters.

4.4. Practice implications

Due to their mostly non-affective responses to patients' emotional cues, GPs might not succeed in achieving a real understanding of their patients' complaints. In case of migrant patients this is particularly worrisome, because possible psychological reasons to visit their GP will remain undetected. To improve the quality of care to migrant patients, GPs should be made more aware of the higher prevalence rates of some psychological disorders among migrant patients and be trained in using more affective communication techniques to enhance elicitation of migrant patients.

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