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Mental states in early and late old age patients and their expectations of their physicians

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Summary

Aim. Understanding and fulfilling expectations of patients attending medical consultations is part and parcel of medical practice. Clinical context in which these expectations arise is crucial in assessing patients' expectations. The objective of this research was to assess patients' expectations of medical doctors depending on patients' mental state.

Methods. Patients attending GP consultations were examined. The research sample consisted of 219 patients, out of which 129 (59%) were female and 90 (41%) were male patients. The mean age of patients was 61 (SD = 9.80). The 28-item General Health Questionnaire (GHQ-28) and the Four Dimensional Symptom Questionnaire (4DSQ) were administered to assess patients' mental state and Patient Request Form (PRF) was used to assess patients' expectations of medical doctors.

Results. The study revealed that the youngest patients declared the highest anxiety and insomnia levels and that they differed significantly from the oldest patients. The sampled patients did not differ in terms of other mental state dimensions. It was also documented that younger patients had higher expectations of their medical doctors, required greater explanation of their medical condition and expected more emotional support. Both intensity and duration of somatic symptoms were particularly important in shaping those expectations.

Conclusions. The research findings show the need for systematic assessment of mental state of patients attending medical consultations. Mental state and somatic symptoms intensity are essential indicators of patients' expectations of medical doctors.

Key words: patients' expectations, mental state, elderly people

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Introduction

Expectations of patients using health care services grow with advancement in medicine. These expectations refer to treatment methods, organization of health services as well as interpersonal relationship with medical personnel, particularly with doctors. Apart from reliable, professional and comprehensive information, patients expect interest, kindness, compassion, care and support from their health providers. Among factors underlying patients' expectations are, inter alia, general health, mental state or age. The study shows that half of the patients attending GP consultations suffer from mental problems [1, 2]. Based on the analysis of patients in primary care, Terluin [3] identified four dimensions of most common mental health problems, which are: distress, depression, anxiety and somatization.

It is estimated that in the mid of 21st century, people aged 60 and over, will constitute 25% of the world's population, with the most noticeable increase concerning developing countries – as the world reports suggest. As a consequence the number of patients with chronic disease and comorbidities will rise [4]. It is necessary to emphasize that geriatric patients are the most frequent users of healthcare services [5, 6].

Mental state

Mental state is a part of a mental process that also includes other elements, for instance, emotional state (affect and mood), psychomotor function, cognitive processes, perception of self and behavior. Mental state encompasses both elements of wellbeing and pathological symptoms as well. Mental well-being is understood as an optimal psychological functioning and positive experiences recognized as such in the absence of pathological states, such as: anxiety and depression [7, 8].

Challenges of aging

Old age is a natural stage of human development that follows adulthood [9]. It can be looked at from at least three perspectives: the number of life years (chronological, metrical age), biological changes occurring in the organism (biological age) and those occurring in the human psyche (psychological age) [10]. According to the World Health Organization, age 60 has been denoted as the beginning of old age; the remaining criteria of other age groups of older people are the following: 45–59 years "pre-old", 60(65)–74 years "early old", so-called young-old, third age, and 75–89 years – senile age, late old age, so-called old-old [9]. Yet we must not forget that due to the lengthening of the average life span these delineations are symbolic. Nowadays it is emphasized that it is rather how individuals interact with their immediate environment not the biological age itself that determines their belonging to a particular subgroup. Thus when a person becomes less fit and self-reliant they enter the next stage of their life faster [11].

Disabilities of old age can cause greater suffering and malaise. They may also lead to impaired functioning in daily life and limited contact with other people, deprive of

joy of life and increase dependence on other people. From a medical perspective, there are two fundamental types of changes: deterioration in physical condition and so-called multiple pathology. 80–85% of 60 year-olds suffer from at least one, as a rule, chronic disease, 30 % have been diagnosed with impaired hearing, 20% impaired vision, all of which affect their daily activity and contribute to mental state deterioration [12, 13]. People in old age are vulnerable to numerous somatic problems, and these inconveniences and limitations have a great impact on their mental state and general mental health.

Due to health-related problems, the elderly frequently use medical services and thus may have very different expectations of medical personnel.

Patients' expectations of medical personnel

Williams [14] defines expectations as objective needs, wishes and desires prior to a medical consultation. Expectations about treatment, including those of a medical doctor, are important from the patient's perspective because they make it easier for them to take action about health and recovery. Perception of own personal resources, clinical symptoms and the quality of medical interventions is a key factor in undertaking such actions.

Unfortunately patients' expectations are not a subject of systematic investigation and nurses and physicians very often do not understand and underestimate patients' expectations, which as a result are not met. Contact with a patient in the process of making a diagnosis enables medical personnel to create a specific picture of patients' needs which does not necessarily meet their actual expectations [15].

Two groups of patients' expectations of medical personnel can be singled out:

1. expressive – actions undertaken to deliver information (about diagnostic procedures and treatment) and explain (the relationship between the medical condition and behavior, and consequences on other areas of life) and support (expectations of receiving emotional help);
2. instrumental – that is efficient patient care-related performance [16].

Generally, patients have problems voicing the expectations they have of their medical doctor or nurse clearly [17]. Moreover, the collected data indicate that patients' expectations of medical personnel differ considerably depending on the duration of hospital stay and patients' sex [16] as well as the time spent in treatment and age [18]. Patients tend to focus more on information and support with time in the course of their disease [16]. Female patients have greater expectations than male patients [16], and they also expect more in terms of mental support [18]. Expectations concerning emotional support increase with age. Patients over 60 years of age put more emphasis on care and compassion, while still older patients expect mostly emotional support. Research findings show that patients' expectations are met to a certain extent by their family members, e.g., emotional support; while some of these expectations can only be met by health professionals [18].

Nurses tend to have greater awareness of patients' emotional needs than patients' themselves, while the female patients' needs are greater than doctors' perception of

those needs. In the sample group, oncological patients declared higher expectations about information delivery than the perception of those needs was in the group of nurses. In terms of expressive activities – support, a comparative analysis in the group showed that patients' expectations in this area were lower than nurses thought. And the physicians' perception of those expectations was lower than in the group of nurses. Therefore, it can be assumed that patients do not always expect considerable emotional support from medical personnel, while nurses are very often convinced about those needs as particularly strong in their patients. Moreover, physicians underestimated patients' expectations concerning instrumental procedures, which were higher in patients than clinicians believed. It is thus not surprising that patients have high expectations of their personnel regarding high quality instrumental procedures. All the analyses indicate that patients expect more information rather than support from healthcare professionals, as confirmed in part by research conducted by Laskowska and Tulińska [19]. Their research showed that 75% of patients want to be informed about their health even though the information might be unfavorable [16].

Appropriate doctor-patient communication is particularly important. The quantity and quality of information transferred to the patient helps control emotions which have a negative impact on a patient's health. Therefore, knowing patients' expectations enables undertaking more efficient interventions [20, 21].

It is known that in order to deal with a disease patients need specific skills that will help them recognize the disease symptoms and react adequately if they occur, take medication as prescribed and act when their health is at stake, follow most suitable diet and take physical activity, have effective relationship with healthcare professionals, use local community resources, adapt to work or deal with disease-related psychological issues [21, 22]. These skills and knowledge patients acquire throughout the whole therapeutic process from medical personnel. Therefore meeting patients' expectations throughout the whole therapeutic process is becoming a major challenge of modern medicine. To date, considerable research on patients' expectations has focused on the outcomes of unmet expectations, emphasizing patients' satisfaction. The present research allows us to expand to date analyses into the effect a psychological condition and age have on chronic patients' expectations of medical doctors. Based on relevant literature, the following research questions have been formulated:

1. What is the mental condition of the studied patients and what are their expectations of physicians?
2. Does the age of the studied patients diversify their expectations of physicians?
3. Does the mental state of the studied patients diversify their expectations of physicians?
4. Do age, mental condition and duration of the disease allow to predict patients' expectations of physicians?

Method

Sample

The sample consists of patients attending GP consultations. 219 people were examined, including 129 (59%) females and 90 (41%) males, mean age 61 (SD = 9.80). The youngest person was 45 years old, while the oldest was 89 years old. Patients were put into three age categories as delineated by the World Health Organization:

- Group I: n = 106 subjects (48%) – so-called late adulthood 45–59 years (M = 52.76 years; SD = 4.43), a pre-old age (considered herein a control group);
- Group II: n = 88 subjects (40%) aged 60–74 years – early old age (M = 65.14 years; SD = 3.94).
- Group III: n = 25 subjects (12%) over 75 years – old age (M = 79.48 years; SD = 3.60).

Subjects' health condition

All subjects were chronically ill patients, but only some (n = 140; 65%) remained under specialist medical care. The majority suffered from arterial hypertension, coronary heart disease and diabetes (Table 1). The duration of the disease in the studied sample ranged from a few months to 42 years with an average amounting to 10.80 years (SD = 8.66).

Table 1. **The size of the study sample depending on a disease**

Disease	n	%
Arterial hypertension	58	26.48
Coronary heart disease	57	26.03
Diabetes	53	24.20
Tuberculosis and lung disease	37	16.89
Thyroid disease	5	2.28
Arthritis and vertebral syndromes	4	1.82
Other diseases	5	2.28

Research tools

Three measures were used in the study. The 28-item General Health Questionnaire (GHQ-28) by Goldberg, one of the most popular methods, was administered to assess patients' general mental state [2] and the Four Dimensional Symptom Questionnaire (4DSQ) was used to assess the four dimensions of patients' mental disorders: distress, depression, anxiety and somatization. These measures proved extremely reliable in the studied sample because the Cronbach's alpha coefficient values were higher than during adaptation work [23] and were calculated as 0.955, 0.956, 0.945, and 0.926

respectively. GHQ-28 examines four dimensions of mental state: A – somatic symptoms (the Cronbach's alpha value for the studied sample is 0.876); B – anxiety and insomnia (alfa = 0.916); C – social dysfunction (alfa = 0.933); D – depressive symptoms (alfa = 0.941), which together give a total score (alfa = 0.958).

Polish adaptation by Juczyński [24] of the Patient Request Form (PRF) by Salmon and Quine was used to assess patients' expectations of medical doctors. The authors of this measure drew up a list of statements presenting reasons for an encounter, concerning three areas of patients' expectations about: disease explanation (the Cronbach's alpha value for the whole sample group = 0.836), seeking emotional support (alfa = 0.845) and obtaining information about diagnostic procedures and treatment (alfa = 0.847). Moreover, a score indicating a general level of expectations is obtained – the Cronbach's alpha value for the studied sample was 0.914.

Finally, demographic and basic information concerning patients' health were collected with demographics questionnaire.

The research was conducted in compliance with the ethical principles of the Helsinki Declaration, and a permission to carry out this research was granted by the Ethical Committee of the Collegium Medicum Nicolaus Copernicus University in Torun No. EC 440/2012.

Results

Mean values of the analyzed variables

Table 2 presents mean values for the sampled subjects put in age groups within the analyzed variables. Subjects in the control group (late adulthood) had the highest values in most mental health dimensions and expectations of a medical doctor. The results allow us to answer the first research question. The results show that not the elderly but people who are in the stage of old adulthood show least favorable mental state and expect the most of a physician when they suffer from a chronic disease.

Table 2. **Descriptive statistics for the analyzed variables including age sub-grouping**

Analyzed variables	Old age (n = 25)		Early old age (n = 88)		Late adulthood (n = 106)	
	M	SD	M	SD	M	SD
GHQ A – somatic symptoms	7.40	4.79	6.86	3.92	7.63	4.56
GHQ B – anxiety and insomnia	4.36	3.33	6.00	4.29	7.54	5.77
GHQ C – social dysfunction	9.44	4.42	7.97	3.08	9.06	4.12
GHQ D – depressive symptoms	2.32	3.84	1.77	3.15	3.14	5.20
GHQ-28 Sum	23.52	12.01	22.60	11.45	27.37	17.43
GHQ-28 sten	5.16	1.93	5.16	2.05	5.52	2.40

table continued on the next page

4DSQ Distress	8.52	8.01	7.88	9.46	10.07	13.40
4DSQ Depression	2.40	4.30	1.23	2.43	2.31	5.14
4DSQ Anxiety	2.60	4.25	2.42	4.47	4.49	9.37
4DSQ Somatization	10.92	6.89	11.78	10.15	12.06	12.45
Explanation	9.00	3.29	9.28	3.67	10.38	2.69
Support	5.08	4.27	5.26	4.09	6.62	4.07
Information	9.56	3.28	9.51	3.67	10.61	2.54
PRF Sum of expectations	23.64	9.40	24.05	10.05	27.61	7.65

Differences in mental state assessment and expectations of physicians in the studied groups

Firstly, differences in mental state and expectations of doctors were checked regarding the age of subjects. The analysis showed that subjects' mental state differs depending on their age solely in terms of GHQ-28 B – anxiety and insomnia (Table 3). The highest anxiety and insomnia levels were found in the youngest subjects (M = 7.54), who differed significantly from the oldest subjects (M = 4.36). The latter had fewest complaints about these disorders (p = 0.03). In the remaining mental state dimensions, subjects did not display any differences.

Table 3. **The analysis of variance scores for mental state dimensions depending on age**

Analyzed variables	F/H	p
GHQ 28 A – somatic symptoms	0.762^{F}	0.468
GHQ 28 B – anxiety and insomnia	7.273	0.026
GHQ 28 C –social dysfunction	1.450	0.484
GHQ 28 D – depressive symptoms	3.017	0.221
GHQ-28 Sum – raw scores	1.570	0.456
4DSQ Distress	0.167	0.920
4DSQ Depression	1.286	0.526
4DSQ Anxiety	1.089	0.580
4DSQ Somatization	0.108^{F}	0.898

F – F-statistics value; H – H-statistics value; p – statistical significance

Secondly, differences among subjects in terms of patients' expectations of a physician were verified including age groups (Table 4). The study showed that there are significant differences among subjects in the following dimensions: explanation, support and the level of general expectations of a physician. Age was not a differentiating factor in patients' expectations regarding diagnostic procedures and treatment. The younger

the subjects were, the more expectations of a doctor they had, they needed more explanation about their disease, and they expected more emotional support.

Table 4. **The analysis of variance scores for patients' expectations of doctors depending on age**

Analyzed variables	F/H	p
Explanation	7.626	0.022
Support	3.174[F]	0.044
Information	5.178	0.456
PRF Sum of expectations	8.235	0.016

F – F-statistics value; H – H-statistics value; p – statistical significance

Differences in the scope of patients' expectations of doctors depending on the intensity of mental disorder symptoms

In further statistical analyses only an overall score calculated in GHQ-28 was taken into consideration and used as a mental state indicator. Subjects were grouped in three subgroups depending on the obtained overall score (Table 5). Next, differences in the scope of patients' expectations of a doctor among the subgroups were verified. Statistically significant differences were identified in the intensity of patients' expectations of a doctor in the dimension of emotional support depending on the subjects' mental state (Tables 6–8). The more symptoms patients signaled, the greater their expectations of doctors were, especially in terms of support.

Table 5. **The size of the study sample depending on the intensity of mental disorders symptoms as measured with GHQ test**

Level of GHQ – sum	n	%
Low intensity of symptoms(1–4 sten)	88	40.18
Average intensity of symptoms (5–6 sten)	63	28.77
High intensity of symptoms (7–10sten)	68	31.05

Table 6. **The analysis of variance scores for patients' expectations of doctors depending on mental state**

Patients' expectations of a doctor	F/H	p
Explanation	3.50	0.174
Support	32.18	< 0.0001
Information	2.90	0.235
PRF Sum of expectations	10.00[F]	< 0.0001

F – F-statistics value; H – H-statistics value; p – statistical significance

Table 7. **Significance level of analyses computed with a multiple comparison test within the scope of expectations concerning support from a doctor depending on mental state**

Symptoms intensity	Low (1–4 sten) R:81.44	Average (5–6 sten) R:113.78	High (7–10 sten) R:138.27
Low (1–4 sten)		0.005	< 0.0001
Average (5–6 sten)	0.005		0.077
High (7–10 sten)	< 0.0001	0.077	

Table 8. **Significance level of analyses computed with a NIR test within the scope of patients' expectations of a doctor depending on mental state**

Symptoms intensity	Low (1–4 sten) M = 22.86	Average (5–6 sten) M = 26.00	High (7–10 sten) M = 29.16
Low (1–4 sten)		0.030	< 0.0001
Average (5–6 sten)	0.030		0.039
High (7–10 sten)	< 0.0001	0.039	

M – arithmetic mean

In order to deepen the analysis aiming to verifying whether age and mental state together diversify patients' expectations of a physician, analysis of variance (ANOVA) was carried out for main effects, which showed that mental state plays a way more important role than age as far as expectations of a doctor (Table 9) are concerned.

Table 9. **The results of ANOVA analysis of variance**

	Test	Value	F	Effect – df	Error – df	p
Absolute term	Wilks	0.115	523.26	3	205.00	<0.00001
Age-code	Wilks	0.966	1.19	6	410.00	0.308
GHQ-code	Wilks	0.879	4.54	6	410.00	0.001
Age-Code*GHQ-code	Wilks	0.931	1.25	12	542.67	0.248

F – F-statistics value; df – degrees of freedom; p – statistical significance

The research findings allow us to answer the third research question and conclude that in the studied sample mental state turned out to be the most significant factor affecting patients' expectations of a doctor. And that these expectations increased, especially for support, as their mental health deteriorated.

Multiple regression analysis – predictors of patients' expectations of a doctor

At the final stage of the analyses, it was verified whether mental state as expressed in different dimensions of the GHQ scale, patient's age, and duration of a disease together allow us to predict the intensity of patients' expectations of a doctor. For this purpose

multiple regression analysis was conducted. Based on the determined variables, we can predict patients' expectations of a physician.

Expectations for information about the disease are met in 4% in the analyzed variables ($R = 0.263$; $R^2 = 0.069$; Adjusted $R^2 = 0.042$; $F(6.203) = 2.523$; $p < 0.022$). Among these variables somatic symptoms play a particular role (GHQ-28 A). The greater their intensity, the greater the expectations for explanation (Beta = 0.253; t = 2.35; p = 0.020).

Expectations for support are met in approximately 19% as the analyzed variables show ($R = 0.464$; $R^2 = 0.215$; Adjusted $R^2 = 0.192$; $F(6.203) = 9.277$; $p < 0.00001$). Among these variables anxiety and insomnia (GHQ-28 B) as well as duration of a disease are of particular importance. The greater the intensity of anxiety and insomnia (Beta = 0.217; t = 2.08; p = 0.039) and a shorter duration of a disease (Beta = – 0.172; t = – 2.14; p = 0.014), the greater the expectations for support.

Expectations for information about a disease are met in approximately 4% as the analyzed variables show ($R = 0.257$; $R^2 = 0.066$; Adjusted $R^2 = 0.039$; $F(6.203) = 2.394$; $p < 0.030$). Among these variables particularly important are somatic symptoms (GHQ-28 A). The greater their intensity, the greater the expectations for explanation (Beta = 0.241; t = 2.23; p = 0.027).

Generally, patients' expectations of a doctor are met in approx. 10% as the analyzed variables show ($R = 0.354$; $R^2 = 0.125$; Adjusted $R^2 = 0.099$; $F(6.203) = 4.841$; $p < 0.0001$). Among these variables somatic symptoms (GHQ-28 A) and duration of a disease play a distinctive role. The more intensive the somatic symptoms (Beta = 0.226; t = 2.17; p = 0.032) and the shorter duration of a disease (Beta = – 0.161; t = – 2.29; p = 0.023), the greater the expectations of a doctor.

The results of our analyses allow us to answer the last research question. We find that mental state expressed in the intensity of somatic symptoms felt by a patient and a duration of a disease have a particular role in shaping patients' expectations of a doctor.

Discussion

Until a few decades ago, the biomedical approach to a patient was the predominant model used by healthcare professionals in medical practice. It focused on a disease and a patient with its central position in the process taken out of a widely-understood context of human functioning [25]. Nowadays human beings and their health are treated holistically and health problems are considered in a broad context of various aspects of human lives. It is reflected, among others, in a different model of a human being ecosystem, so-called: The Mandala of Health – developed by the Department of Public Health, City of Toronto. The model rests on a basic assumption that the connections between a human being and his/her environment are very complex. A new concept of a human being – far from that depicted by Descartes in his concept of a dual nature of man – is beginning to take a decisive role, in which patients' thoughts and feelings are recognized as being associated with their health.

The research findings allow us to gain an in-depth knowledge about the factors conditioning patients' expectations of doctors in a group of elderly patients with chronic conditions. The highest scores in most dimensions of mental state and patients'

expectations of a doctor were found in the control group (late adulthood). The highest anxiety and insomnia levels (GHQ-28 B) were documented in the youngest subjects, and they differed significantly from the oldest subjects who reported fewest complaints about these disorders. The epidemiological research findings suggest that anxiety and depression, as defined according to the criteria laid down in ICD-10 and DSM-IV, occur less often in older than in younger adults [26]. General practitioners in primary care are also of the opinion that older patients in a medical encounter are less likely to talk about their worse mood and mental problems. They mainly focus on somatic symptoms such as: muscle pain or headache and fatigue. Underestimating and all too often staying silent about the symptoms relating to mental state (different that in younger patients) may result from fear of stigma, embarrassment and a belief that bad mood is associated with aging [27]. Moreover, it is worth mentioning that a chronic disease that restricts independence of an individual tends to induce anxiety and fear and contributes to sleep disorders. Yet this situation is socially recognized as normal when it refers to the elderly. It seems that younger people find it more difficult when faced with a condition limiting their functioning, interfering with achieving life plans and tasks, preventing or even stopping them from satisfying different needs of life and contributing to the loss of important values [28].

Results from GHQ-28 questionnaire are considered by researchers to be predictors of a person's physical and mental state [29]. Previous research provide evidence for a relationship between a physical well-being and a perceived health [30]. Moreover, it has to be remembered that genetic parameters strongly affect mental well-being of an individual [31].

According to the research findings [14] patients very often expected the doctor to understand and explain the nature of the problem they reported. Patients also needed to feel that the doctor concentrates on what is important for them. Research by Ruiz-Moral et al. [32] also confirmed those expectations. This research revealed that patients seeking help from a family doctor had two general expectations: to obtain information about their health and that the doctor showed interest in them. In Poland, Marcinowicz et al. [33] studied expectations of patients in a primary care consultation. They found that effective treatment, health-related problem solving and accurate diagnosis were among most frequently held expectations while other issues were most unwillingly brought up in consultations. Research conducted on Lithuanian patients showed similar results and found that patients mostly expected to receive information and explanation about the therapy management [34]. Research conducted in Bangladesh also confirmed these expectations [35]. As it clearly arises from the presented data, despite cultural differences patients' expectations are similar and this allows for generalization of the conclusions obtained in the research.

Our research showed that the elderly patients had lower expectations of a doctor. It is worth mentioning that the elderly may have lower expectations of a doctor as they are reconciled with their health condition and treat it as at least partially adequate to the stage of their life. They are very often convinced that old age implies deterioration of health and as a result may not expect detailed information or explanation. They accept the condition, symptoms and all they entail as a natural sign of aging [27].

The research showed that the higher the level of mental disorders experienced by a patient, the higher their expectations for support. It has also been confirmed in research conducted by other researchers which show that in this situation a sick person and his/her family expect that the doctor will support them, professionally calm the emotions and show full respect and acceptance [36].

The intensity of somatic symptoms proved to be the most significant predictor impacting patients' expectations of a doctor for explanation regarding all health-related issues and for information about the symptoms and medical treatment. This seems logical, the intensity of somatic symptoms always evokes anxiety, patients start to look for information and rational explanation for what is happening. Therefore the doctor, they came to for a diagnosis, naturally becomes the most reliable source of information.

We need not forget that appropriate doctor-patient relationship is vital in achieving mutual success. This appropriate relationship is very often understood in terms of meeting patients' expectations. It applies particularly to chronically ill patients such as diabetes, arterial hypertension or hypercholesterolemia [37].

Conclusions

The research findings obtained in the research indicate that there is a need for a systematic assessment of a mental state of patients attending a medical consultation, especially among younger patients because it is particularly difficult for them to cope with a chronic disease at this stage in life. A negative emotional state can cause reduction in general immunity and further contribute to general health deterioration and problems with treatment [38–40].

Practical implications

The research findings show there is a need to:

1. make systematic assessment of mental state of patients attending a medical consultation;
2. improve healthcare personnel skills in providing care to chronically ill patients, especially when it comes to understanding how mental state impacts patients' expectations of a doctor.

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