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Beliefs and attitudes to lifestyle, nutrition and physical activity: the views of patients in Europe

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Objective. The aim of the EUROPREVIEW study was to explore patients' beliefs about the importance of lifestyle and preventive services, to assess their readiness to make changes in diet and physical activity and their willingness to receive support from GPs.

Methods. The study was done in 22 European countries, in 10 practices per country, with each 40 patients aged 30–70 years. The interview period was September 2008 to September 2009. The analysis was based on 7947 participants (52.2% females and 47.8% males).

Results. More than half of the patients think their lifestyle is important for their health: eating habits 53%, physical activity 55% and normal body weight 59%. Almost half of the patients think they have to improve their lifestyle in terms of eating behaviour (43%), physical activity (48%) and body weight (48%). More than half of the patients say they have plans to change and two-thirds say they are confident to succeed. Two-thirds of the patients say that they would like to receive support by their GP. About half of patients reported that GPs initiated a discussion about these topics.

Conclusions. This study raises a number of health promotion and prevention issues of interest for primary health care providers. There is a discrepancy between the expectations of patients and the performance of GPs. A high proportion of patients who visited primary care with unhealthy lifestyles do not perceive the need to change and about half of the patients reported not having any discussion on these topics with GPs or primary care team.

Keywords. Lifestyle, nutrition, patients, primary care.

Introduction

Behavioural risk factors such as smoking, poor nutrition, at-risk alcohol consumption and physical inactivity are the main preventable risk factors for chronic conditions which account for >60% of the overall global burden of disease now and expected 80% by the year 2020.[1] Clinical prevention, including lifestyle advice and screening for cardiovascular risk factors, is an important and positive component in the daily practice of all family doctors/GPs.[2] Two-thirds of the population visit their GP at least once per year and 90% at least once in 5 years. Therefore, primary health care is a suitable setting for interventions to reduce behavioural risks factors and recommend preventive activities.[3,4]

However, differences in the structure and organization of practice in European countries are associated with a large variation in the degree of involvement of GPs in preventive activities.[5]

A survey among >2000 European GPs showed a significant gap between GPs' knowledge and their practice in the use of evidence-based recommendations for health promotion and disease prevention in primary care.[6]

Several international studies showed an overall lack of emphasis on prevention[7] and that patients are infrequently reminded of important lifestyle-related risk factors and that some patients are unaware of their unhealthy lifestyles.[8,9] For preventive programmes in general practice to succeed, patients' points of view must be taken into account in addition to those of GPs.[10]

Therefore, European Network for Health Promotion and Prevention in General Practice/Family Medicine

(EUROPREV) conducted a study, as follow-up on the survey in 2005 on the views of GPs on prevention.[6] The aim of this study was to explore patients' beliefs about the importance of lifestyle and preventive services, to assess their readiness to make changes in diet and physical activity and to assess their willingness to receive support from GPs.

Methods

Sample

The EUROPREVIEW study was designed as a cross-sectional survey and was done in 22 European countries (Austria, Belgium, Croatia, Cyprus, Finland, France, Georgia, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Malta, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and Turkey). Within each country, a national coordinator selected at least 10 practices from a list of GP tutors, colleges or University Departments, with practices being half rural or semi-rural and half urban. Forty patients were selected per practice as follows: 10 males and 10 females aged 30–49 years and 10 males and 10 females 50–70 aged years.

The interview period was between September 2008 and September 2009. Data collection was self-administered but with the supervision of GPs or research assistants (including nurses and medical students).

Patients were consecutively selected from primary care practices after attending GPs' consultations during different days of the week and from >1 week in a month if necessary to reach the estimated sample size. Patients from the list of the GP investigator at national level were excluded to avoid potential biases.

A structured questionnaire was developed, which contained four sections: socio-demographic and clinical characteristics (10 questions), lifestyle of the patients regarding information on eating habits, physical activity, smoking habits and alcohol consumption, and also measured screening for cervical and breast cancer in women (13 questions), patients' views regarding health promotion and disease prevention following the stages of change model (5 questions) and information about the care provided by the GP/team (2 questions).

Statistical analysis

Considering that a previous study showed that the percentage of patients who did not receive reminders for preventive care varied between 49% and 62%,[7] it would be reasonable to assume that the estimated true proportion could be of 0.5, adopting the most conservative option. Therefore, taking an estimated proportion of patients who do not receive reminders as 0.5, the maximum acceptable difference of 0.05 and an alpha error of 0.05, the required sample size calculated per country (assuming ten GPs per country taking care of a population of 2000 patients per GP on average) was of 380 patients (8360 for 22 European countries).

Countries were considered as strata and practices as clusters. Stratification weights defined by sex and age per country were applied using the EUROSTAT database (http://epp.eurostat.ec.europa.eu).

Mean and percentages with 95% confidence interval were used to describe the continuous as well as categorical variables. Comparisons by sex were performed using the Student *t*-test and the chi-square test.

Views of patients were analysed regarding changes in lifestyle, specifically for tobacco, alcohol, eating habits and physical activity, and regarding the optimal interval for screening for cardiovascular risks factors and cancer and for receiving vaccination.

A P value of <0.05 was considered to be statistically significant and borderline when it equals this value.

All statistical analyses were done with STATA statistical software (Version 9.2) in the EUROPREVIEW coordinating centre.

Data entry

A specific web page was developed with all the items included in the questionnaire, and online data entry was carried out by a person specifically employed and trained for the study in each country.

Results

We present here the results concerning diet, physical activity and body weight from the whole set of questions included in the survey that will be published elsewhere.

A total of 60 participants were excluded from the analysis because either they had missing data on sex category or the age was out of range. The analysis was based on the remaining 7947 participants (52.2% females and 47.8% males).

Participants were interviewed in 200 primary care practices from 22 countries in Europe (Fig. 1); 45% of the practices were situated in an urban area, 32.5% in a rural area, 22.5% in a mixed area and 4.5% in hospitals; 80% of the practices were public, 60% were teaching practices and 71.5% had electronic patient records. The average of hours working per week per GP was 37.67, and the average of patients seen per week per GP was 151

Table 1 describes patients' demographics as well as the relevant clinical characteristics related to lifestyle by sex.

Tables 2 and 3 show how people think about their eating habits, physical activity and body weight and the importance of these factors for their health.

Table 4 shows how far the GP or practice team ever initiated a discussion about eating habits, physical activity or body weight. In ~40%, the GP never initiated this, in ~40% of the cases they did last year.

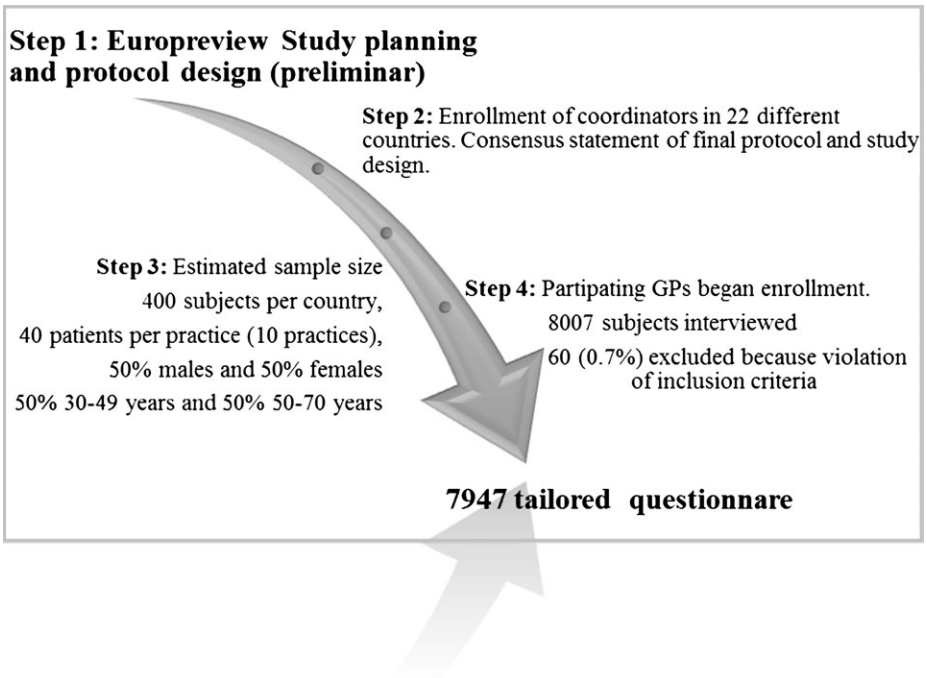

FIGURE 1 *Steps involved in the section of patients form 22 European countries*

TABLE 1 *Patients' demographics as well as clinical characteristics by sex, self-recorded by patients*

		Men (n = 3800)	Women (n = 4147)
Age, mean (95% CI)		48.5 (48.0–49.1)	48.8 (48.4–49.3)
Education*, % (95% CI), n = 7421[a]	Primary	30.7% (27.4–34.3)	35.4% (31.6–39.4)
	Secondary	45.7% (42.5–49.0)	42.6% (39.3–45.9)
	Tertiary	23.5% (20.2–27.3)	22.0% (19.0–25.3)
Visits to GP during last year*, % (95% CI), n = 7828	One to two times (including visit)	33.6% (30.0–37.5)	25.0% (22.2–27.9)
	Three to four times	29.9% (27.8–32.1)	31.9% (29.8–34.1)
	Five times or more	36.4% (33.1–39.9)	43.1% (40.0–46.2)
Smokers*, % (95% CI), n = 7878		33.2% (29.9–36.5)	23.4% (21.2–25.8)
Risky drinkers*, % (95% CI), n = 7541		23.9% (21.3–26.7)	8.8% (7.5–10.3)
Lack of physical activity*		16.45% (14.3–18.9)	12.68% (10.5–15.2)
Unhealthy eating habits*		17.62% (15.8–19.6)	11.6% (9.9–13.5)
Comorbidity % (95% CI)			
Diagnosed of high blood pressure*		32.9% (30.9–34.9)	27.8% (25.9–29.8)
Diagnosed of high blood glucose*		11.9% (10.0–14.1)	9.6% (8.0–11.6)
Diagnosed of high blood cholesterol*		24.9% (22.6–27.5)	21.4% (18.9–24.1)
Diagnosed of CHD*		5.4% (4.3–6.8)	2.8% (2.0–3.8)
Diagnosed of heart failure		4.5% (3.7–5.4)	3.5% (2.8–4.3)

n, sample size; CI, confidence interval; CHD, coronary heart disease.
[a]Data from Finland was not included.
*$P < 0.05$.

TABLE 2 *Lifestyle habits: beliefs*

	I think my ...					
Eating habits are ...	Very unhealthy	Rather unhealthy	Relative healthy	Healthy	Very healthy	Missing
	2.2%	12.4%	44.9%	35.0%	4.5%	0.9%
I exercise for at least 30 minutes a day	Never	Less than two times a week		Two to three times a week or more often		Missing
	14.6%	12.9%		71.0%		1.5%

TABLE 3 *Lifestyle habits: importance for health*

How important for your health is ...					
	Not important (%)	Of slight importance (%)	Important (%)	Very important (%)	Missing (%)
Eating habits	0.8	7.9	53.4	36.1	1.7
Physical activity	1.4	11.0	54.7	30.6	2.2
A normal body weight	1.1	9.2	59.0	28.4	2.3

TABLE 4 *Lifestyle habits: discussion by GP*

Has your GP team ever initiated a discussion about your ...						
	No (%)	I don't know (%)	Yes, in the last 12 months (%)	Yes, more than 12 months ago (%)	Yes, but I can't remember when (%)	Missing (%)
Eating habits	39.5	6.0	33.4	6.8	10.7	3.6
Physical activity	37.0	5.8	37.2	6.7	9.0	4.3
Body weight	40.4	5.2	34.9	7.0	7.9	4.5

TABLE 5 *Lifestyle habits: desired support from GP*

What kind of support would you like to receive from your GP team?					
	No answer (%)	Information leaflets (%)	Individual counselling (%)	Group counselling (%)	Referral to special care
Eating habits	33.5	31.7	34.4	3.7	8.7
Physical activity	38.0	28.6	32.4	4.9	6.5
Body weight	37.6	25.6	33.3	4.1	8.9

Table 5 indicates what kind of support patients would like to receive from the primary care team. About one-third prefers individual counselling, about a quarter would like to get information leaflets, while ~10% wants group counselling or a referral to special care.

Figures 2–4 reveal the views of patients regarding changes in lifestyle, specifically for eating habits, physical activity and overweight. Overall, more than half of the patients say that they need and plan to change their habits and feel confident to change.

Subjects with unhealthy habits like smoking or binge drinking were more convinced that they need to improve eating habits, physical activity and body weight. Subjects with hypertension (HTA) and/or dyslipidaemia were more convinced that they need to improve eating habits and body weight, but they did not differ with subjects without HTA and/or dyslipidaemia about the need to do more physical activity. Subjects with other comorbidity like coronary heart disease or heart failure were more convinced that they need to improve body weight, but definitely they believed they had not to do more physical activity. We did not find differences when comparing subjects with and without DM (data not shown).

Discussion

From the results of the EUROPREVIEW survey, we can draw some conclusions.

First almost half of the patients think they have to improve their lifestyle in terms of eating behaviour, physical activity and body weight. More than half of the patients say they have plans to change and, moreover, two-thirds say they are confident to succeed. A limitation is that these answers might be socially desirable, so we do not know if these patients really change their lifestyle.

Two-thirds of the patients say that they would like to receive advice by their GP and not by a specialist or others. These results show that patients have a high trust in their GP and that patients attending primary care practices in Europe expect support by their GP regarding changes in lifestyle on nutrition, physical activity and body weight.

Only half of patients reported that GPs initiated a discussion about these topics. This illustrates that there is a discrepancy between the expectations of patients and the performance of GPs. Since we did not study the reasons for GPs not to talk about lifestyle,

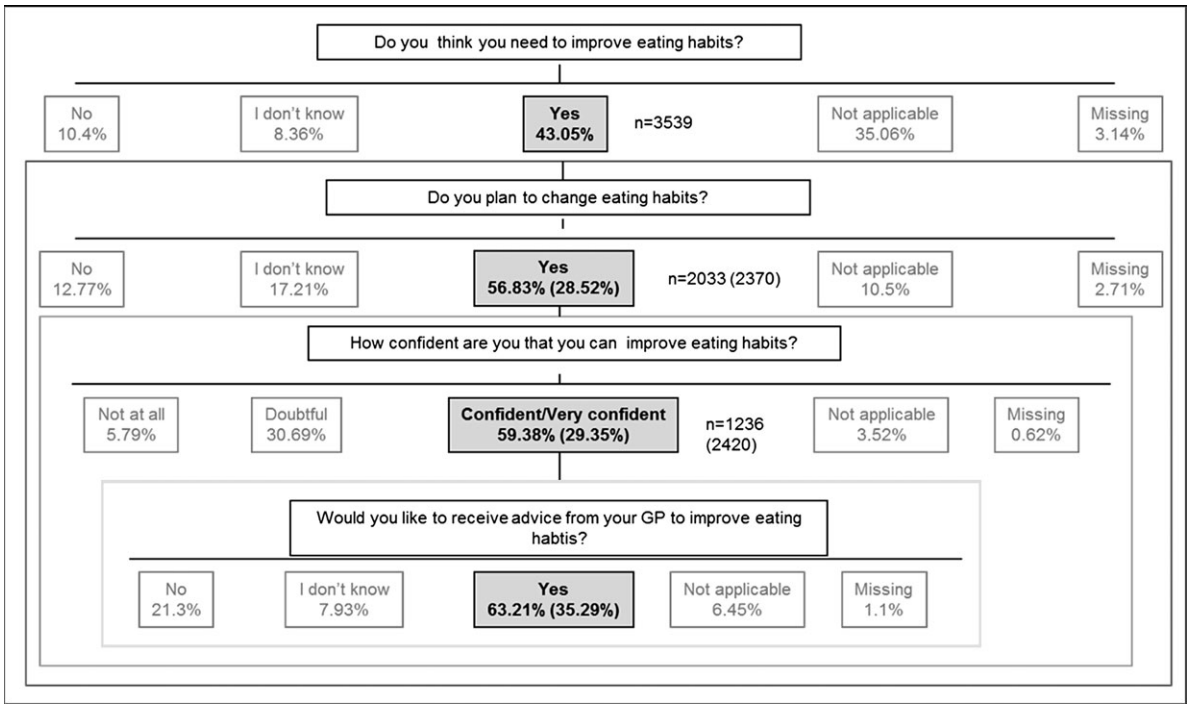

FIGURE 2 *Readiness for change and self-confidence to change eating habits. In parenthesis, percentages and number of responders of the whole sample (n = 7947)*

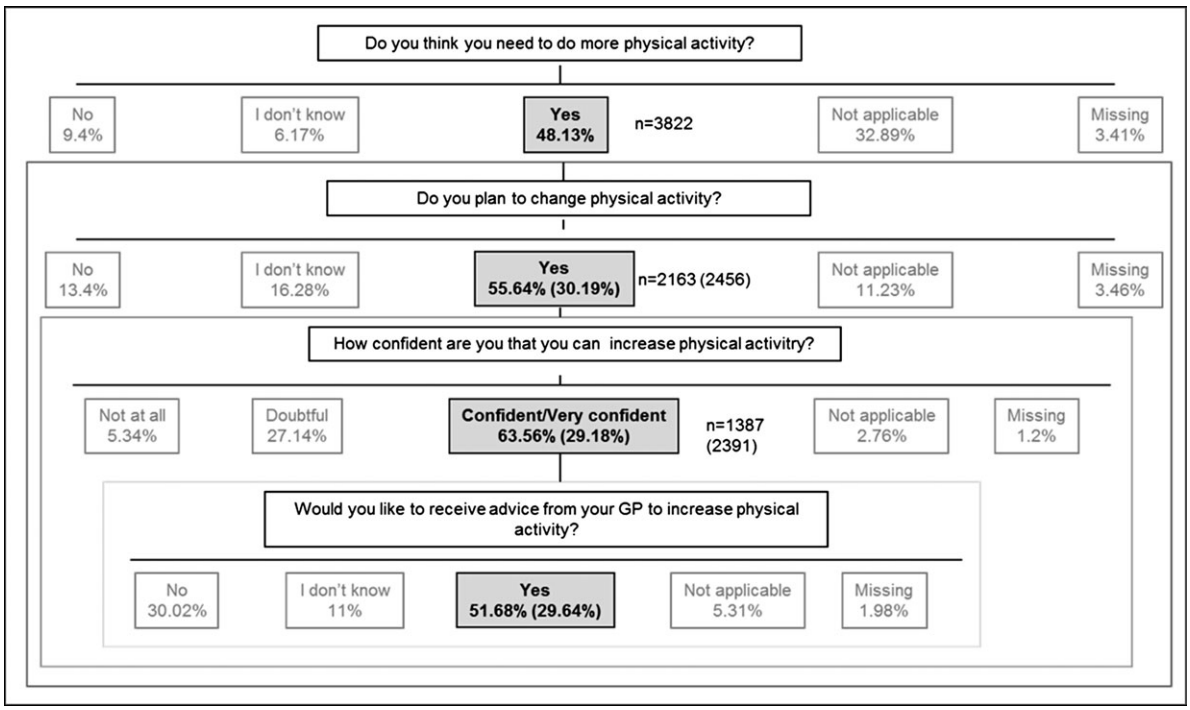

FIGURE 3 *Readiness for change and self-confidence to change physical activity. In parenthesis, percentages and number of responders of the whole sample (n = 7947)*

we only can speculate tentatively about the bottlenecks for the implementation of advice on nutrition, physical activity and overweight. One reason might be that it is time consuming in a busy General Practice to manage lifestyle changes. Also the success and effectiveness of lifestyle advice is often difficult to achieve and to evaluate. Finally, lifestyle advice by GP or practice nurse is often not reimbursed.

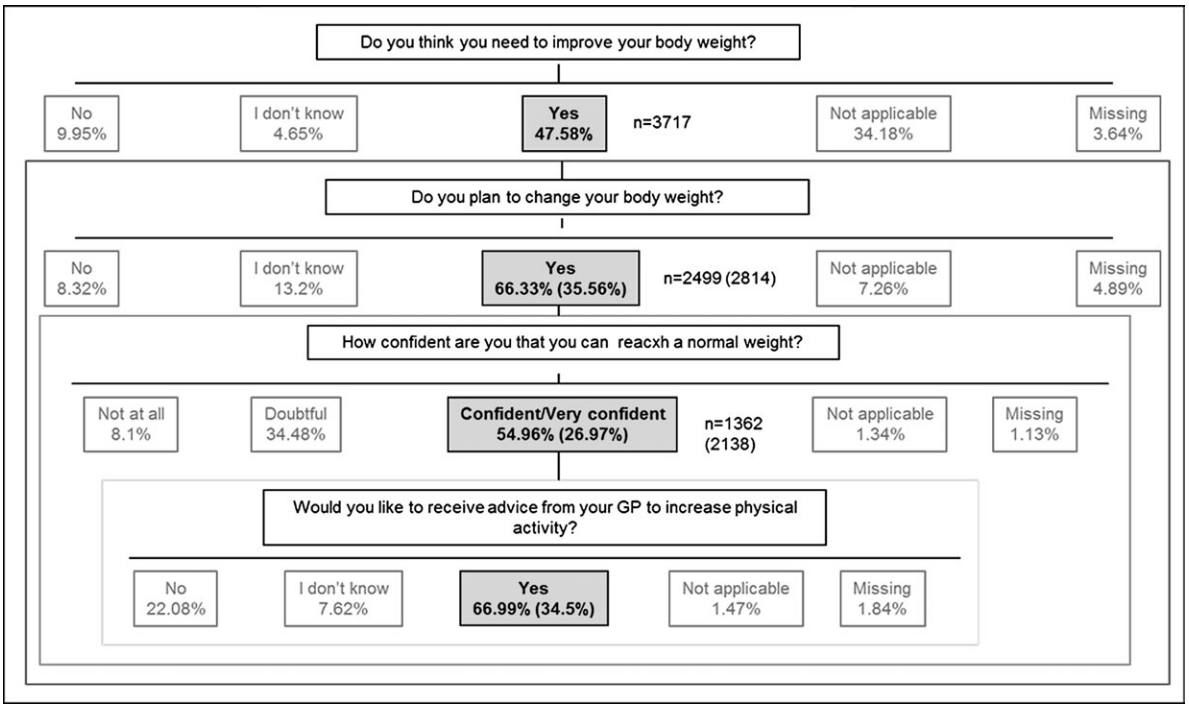

FIGURE 4 *Readiness for change and self-confidence to change body weight. In parenthesis, percentages and number of responders of the whole sample (n = 7947)*

In a study regarding lifestyle advice in the USA in a large number of patients, receiving lifestyle advice concerning alcohol (reported by 16%) was also less common than advice about smoking (49%) and exercise (47%) and eating habits (45%).[11]

In another study done in Sweden, only 18% of patients reported that they had received advice at least in one area, with a 4-fold variation between the most common type of advice (exercise in 16%) and the rarest type (alcohol in 5%).[12]

European GPs believed they should advise preventive and health promotion activities, in practice it was not so clear that they did that for eating habits, lack of physical activity and obesity.[13]

The study has some limitations that should be mentioned. Lifestyle habits were self-reported by patients and could thus be inaccurate or biased, being the most common problem an under-reporting of their actual lifestyle or the advice given at their last visit to the practices either to sensitivity of some of the lifestyle areas or forgetfulness. Primary care teams were selected based on an expression of interest, hence may have been more interested and motivated to address lifestyle risk factors compared to other teams, and also were therefore not a representative sample of patients in each country.

The generalizability of the results could have been influenced by the participation rate of those invited. Unfortunately, the relevant data were recorded in only 11 countries, with the mean participation rate of these countries being 90.7%.

An important strength of the EUROPREVIEW survey is that it was a multinational survey following the same protocol and standardized methods.

In conclusion, this study raises a number of health promotion and prevention issues of interest for primary health care providers.

There is a high proportion of patients visited in primary care with unhealthy lifestyles that do not perceived the need to change and about half of the patients reported not having any discussion on these topics with GPs or primary care team.

We need more insight in the actual attitudes of GPs about their role in lifestyle interventions and in the barriers to implement these in daily practice.[14]

In conclusion, the results of this study suggest that it might be beneficial for the GP to follow training and get more knowledge about evidence-based programmes, easy-to-use affective tools and brief interventions on physical activity modification and weight management.[15–17]

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