

# Attitudes of First and Fourth Year Nursing Students to HIV/AIDS: A Comparative Study

## Birinci ve Dördüncü Sınıf Hemşirelik Öğrencilerinin HIV/AIDS'e Yönelik Tutumları: Karşılaştırmalı Bir Çalışma

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**ABSTRACT Objective:** This study aims at comparing the attitudes of nursing faculty students towards HIV/AIDS. **Material and Methods:** For data collection, the AIDS Attitude Scale, developed by Bliwise et al. (1991) and adapted to Turkish society by Çimen et al. (2005). Written permission was obtained from the ethics committee, faculty dean and students before the data were collected. The data are taken from between January-March 2013. For data analysis, percentages, averages, ANOVA and "t" tests were used. **Results:** It was found out that the fear of contagion of the senior students (n=77) is lower than that of the first graders (n=136) and family and area of residence has no influence on the HIV/AIDS attitudes of students. It was detected that female students adopt a more positive attitude in terms of feelings (p= 0.006) and professional resistance (p= 0.031). Finding their knowledge sufficient has an influence on the professional resistance and negative feelings subdimension points of the students. The fear of contagion of the students that consider HIV/AIDS as a threat for themselves or their country was higher and their general attitude was more negative (p= 0.001). As the willingness of the students to give care increased, their negative feelings decreased (p= 0.000). **Conclusion:** The students must be informed more and a safe working environment where precautions against contagion are taken must be created.

**Keywords:** Attitude; education; nursing; HIV/AIDS; willingness to care

**ÖZET Amaç:** Bu çalışma, hemşirelik fakültesi öğrencilerinin HIV/AIDS'e ilişkin tutumlarını karşılaştırmak amacıyla yapılmıştır. **Gereç ve Yöntemler:** Veri toplama amacıyla Bliwise ve ark. (1991) tarafından geliştirilen AIDS Tutum Ölçeği, Çimen ve ark. tarafından Türk toplumuna uyarlanmıştır (2005). Veriler toplanmadan önce etik kuruldan, fakülte dekanlığından ve öğrencilerden yazılı izin alınmıştır. Çalışma Ocak - Mart 2013 tarihleri arasında yapılmıştır. Veri analizi için yüzdeler, ortalamalar, ANOVA ve "t" testleri kullanılmıştır. **Bulgular:** Dördüncü sınıf öğrencilerin (n= 77) bulaşma korkusunun birinci sınıf öğrencilerden (n= 136) daha düşük olduğu ve ikamet alanının öğrencilerin HIV/AIDS tutumları üzerinde herhangi bir etkisi olmadığı bulunmuştur. Kız öğrencilerin duygularında (p= 0.006) ve mesleki dirençte (p= 0.031) daha olumlu bir tutum takındıkları tespit edilmiştir. Öğrencilerin bilgilerini yeterli bulma durumu, profesyonel direnç ve olumsuz duygular alt boyut puanlarını etkilemektedir. HIV/AIDS'i kendileri veya ülkeleri için tehdit olarak gören öğrencilerin bulaş korkusu daha yüksekti ve genel tutumu daha olumsuzdu (p= 0.001). Öğrencilerin bakım verme isteği arttıkça olumsuz duygular azalmıştır (p= 0.000). **Sonuç:** Öğrencilerin daha fazla bilgilendirilmesi ve bulaşıcılığa karşı alınan önlemlerin alındığı güvenli bir çalışma ortamı yaratılması gerekir.

**Anahtar Kelimeler:** Tutum; eğitim; hemşirelik; HIV/AIDS; bakım isteği

In today's world, HIV/AIDS, which is highly contagious, is among the prime health problems threatening public health. The treatment of the individuals that have the disease is wearisome and expensive. AIDS has caused 39 million people to die.<sup>1</sup> Recently, an increase in the case numbers have been observed in Turkey, as well.<sup>2</sup>

Heterosexual contact with HIV (+) carriers, intravenous substance use, homosexual contact, blood transfusion, transmitting from HIV (+) mother to the infant are the risk factors. This increase in cases indicates that nurses, along with other health professionals, are going to be giving care to more HIV/AIDS patients. The disease has a negative impact on individuals in the world and in our country and the individuals that have this disease are stigmatized and cast out. Usually because of the behaviors that do not comply with the values and beliefs shared by the society, the patients that possess the disease have difficulty accessing their healthcare rights for they are being judged by the society.<sup>3-5</sup> People with HIV / AIDS suffer from stigmatization, obstacles to participation in work, education, social and cultural life. Patients may experience physical and emotional harm with discrimination, embarrassment, mockery, deprivation of right, loss of roles / relationships.<sup>5</sup>

The fear that they will be stigmatized by healthcare professionals might prevent patients from having tests, treatment and consultancy services. This may lead to a lag in care and, accordingly, an increase in the costs for the patient and the healthcare system.<sup>3,5</sup> In terms of medical ethics, health professionals should treat HIV / AIDS patients according to principles of confidentiality, efficacy, confidentiality, justice and equality. The nurse must protect his or her privacy by ensuring the confidentiality of information about the patient's disease, except in cases of harm to himself or others.<sup>5</sup>

In cases where the patients have access to healthcare services, the fear and condemnation towards HIV/AIDS patients might decrease the effectiveness of the care. Çimen et al. (2005), in their study that examined the attitude of third grade nursing students towards HIV/AIDS, found out that 51% of the students did not want to send their children to a school where there is an HIV/AIDS patient, 70% told they would react if the majority of their patients were HIV/AIDS patients, 57% told they didn't prefer to work with HIV/AIDS patients and 62% told they might consider changing their specialty or position if they were obliged to work

with HIV/AIDS patients. During the provision of healthcare service to a sick individual, securing basic human rights and protecting the human dignity and integrity of the patient is the responsibility of the nurse.<sup>5</sup> To be able to provide the HIV/AIDS patients with the necessary care, nurses are to be free from prejudices. This is possible with nurses adopting a positive attitude towards such patients. Since positive attitudes can be developed during education, it is important to know the attitudes of nursing students towards HIV/AIDS patients to make them ready for graduation.

## STUDY UNIVERSE AND SAMPLE

In the study, the whole of the universe was taken as sample. 136 out of 168 first graders (80.95%) and 77 out of 97 fourth graders (79.38%) constituted the volunteering sample group of the research.

## MATERIAL AND METHODS

The data was analyzed using 15.0 SPSS software and for the analysis, percentages, averages, ANOVA and "t" tests were used. The study was done to investigate the attitude of first and fourth grade nursing students towards AIDS. After obtaining written permission from Dokuz Eylül University Faculty of Nursing has been approved by the Research Ethics Board (File number: 03.01.2013/847-GOA, Decision number: 2013/01-05). The descriptive research was implemented on volunteering first and fourth grade students of Dokuz Eylül University Faculty of Nursing between January-March 2013. For the collection of research data, the Survey Form that was created by scanning the relating literature and the AIDS Attitude Scale (Çimen et al. 2005) were used. The survey form consists of 12 questions about the student's grade, age, gender, area of residence of the family, the source they get information about HIV/AIDS, how sufficient they find their knowledge, whether they have contact with a HIV/AIDS patient, whether they have given care to a HIV/AIDS patient, whether they want to be informed or not, whether they consider HIV/AIDS as a threat to themselves or the country.

The AIDS Attitude Scale was developed by Bliwise et al. (1991) and implemented on medicine and nursing students.<sup>7</sup> The scale is a likert scale that includes 15 items and is graded 1 to 6. Bliwise et al. (1991), calculated the test-retest coefficient as  $r=0.92$  and the internal consistency coefficient as  $\mu =0.86$ . The grading is between “I totally do not agree” (1) and “I totally agree” (6). Thirteen of the questions were given points straightly, 2 of them (items 2 and 8) were given points reversely. The attitude score obtained by the addition of the points from fifteen items is between 15 and 19. The AIDS Attitude Scale has 3 sub dimensions that are Fear of Contagion (items 1-5; points: 5-30), Negative Feelings (items 6-9, points: 4-24), and Professional Resistance (items 10-15, points: 6-36). High points obtained from the scale and its sub dimensions indicate a negative attitude towards individuals with AIDS. The validity reliability of the AIDS Attitude Scale was done by Çimen et al. (2005), in Turkey and the test-retest coefficient was found as  $r=0.92$  and the internal consistency coefficient was found as  $\mu =0.86$ .

## RESULTS

While the age average of first grade students was 19.87 (Min-Max=18-26), the age average of fourth graders was 23.16 (min-max=21-27).

An examination of the areas of residence of the students' families reveals that 45.54% (n=97) of them live in cities. 53.05% of the first graders and 30.52% of the fourth graders are female students. 98.53% of the first graders and 96.10% of the fourth graders stated that they had never had a close contact with an HIV/AIDS patient and 98.53% of the first grade students and 88.31% of the fourth grade students reported that they had never provided care for an HIV/AIDS patient. While 50.74% of the first graders and 46.75 % of the fourth graders do not consider HIV/AIDS as a threat for themselves, considering it as a threat for the country is high in both groups (90.44% in first graders, 87.01% in fourth graders). In terms of finding information sufficient, 81.62% (n=111) of first graders and 50.65% (n=39) of fourth graders stated that they did not consider their information sufficient. It was found that the students received most of their information about HIV/AIDS

**TABLE 1:** Distribution of students according to descriptive features.

Features		Number	%
<b>Grade</b>			
1. Grade		136	63.85
4. Grade		77	36.15
<b>Gender</b>			
1. Grade	Female	113	53.05
	Male	23	10.80
4. Grade	Female	65	30.52
	Male	12	5.63
<b>Finding information on HIV/AIDS sufficient</b>			
1. Grade	Yes	25	18.38
	No	111	81.62
4. Grade	Yes	38	49.35
	No	39	50.65
<b>Close contact with a HIV/AIDS Patient</b>			
1. Grade	Yes	2	1.47
	No	134	98.53
4. Grade	Yes	3	3.90
	No	74	96.10
<b>Care to a HIV/AIDS Patient</b>			
1. Grade	Yes	2	1.47
	No	134	98.53
4. Grade	Yes	9	11.69
	No	68	88.31
<b>Willingness to be Informed About HIV/AIDS</b>			
1. Grade	Yes	126	92.65
	No	10	7.35
4. Grade	Yes	67	87.01
	No	10	12.99
<b>Considering HIV/AIDS as a Threat for themselves</b>			
1. Grade	Yes	67	49.26
	No	69	50.74
4. Grade	Yes	41	53.25
	No	36	46.75
<b>Considering HIV/AIDS for the Country</b>			
1. Grade	Yes	123	90.44
	No	13	9.56
4. Grade	Yes	67	87.01
	No	10	12.99

respectively from newspapers and magazines (n=115), radio and television (n=132) and teachers (n=93) that they got least information from neighbors (n=4). The rate of the first grade students (n=126) that want to be informed about HIV/AIDS is higher than that of fourth graders (n=67) (Table 1).

While the comparison between AIDS Attitude Scale total and sub dimension points showed no difference in terms of total score, negative feelings and professional resistance point averages, it was detected that the fear of contagion point average of fourth grade students was lower than that of the first grade students ( $p=0.000$ ) (Table 2).

When the AIDS Attitude Scale sub dimension point averages of the students were compared with regard to the area of residence of the family, a statistically significant difference was not found (Table 3).

It was observed that according to gender, there was a significant difference between the negative feelings and professional resistance sub dimension points of the students whereas there was no difference in total point and fear of contagion sub dimensions (Table 4).

**TABLE 2:** Comparison of the AIDS attitude scale sub dimension points and total points of first and fourth grade students.

Subdimensions	Grades	N	$\bar{X}$	SD	t	p
Fear of Contagion	1. grade	136	19.4044	4.733	3.653	0.000
	4. grade	77	16.7662	5.602		
Negative Feelings	1. grade	136	12.4485	3.727		
	4. grade	77	12.1558	3.627		
Professional Resistance	1. grade	136	15.0147	6.396	0.088	0.930
	4. grade	77	14.9351	6.205		
Total	1. grade	136	46.8676	11.631	1.758	0.080
	4. grade	77	43.8571	12.638		

**TABLE 3:** Comparison of AIDS attitude scale sub dimension point averages according to the area of residence of the family

Area of Residence	Fear of Resistance $\bar{X}\pm SD$	Negative Feelings $\bar{X}\pm SD$	Professional Resistance $\bar{X}\pm SD$	Total $\bar{X}\pm SD$
Village	19.6±3.9	13.4±3.5	15.9±6.2	48.9±9.3
Town	18.7±5.6	12.2±3.6	14.6±6.5	45.5±12.6
City	17.9±5.2	12.1±3.8	15.0±6.2	45.0±12.3
F	1.389	1.452	0.452	1.187
P	0.252	0.236	0.637	0.307

**TABLE 4:** Comparison of AIDS attitude scale sub dimensions and total point averages of the students according to gender.

	Gender	n	$\bar{X}$	$\pm SD$	t	p
Fear of Contagion	Female	178	18.505	0.389	0.346	0.730
	Male	35	18.171	0.903		
Negative Feelings	Female	178	12.039	0.276	-2.751	0.006
	Male	35	13.886	0.552		
Professional Resistance	Female	178	14.573	0.475	-2.171	0.031
	Male	35	17.086	0.983		
Total	Female	178	45.118	0.920	-1.814	0.071
	Male	35	49.143	0.389		

**TABLE 5:** Comparison of AIDS attitude scale sub dimension and total points regarding students' finding their knowledge sufficient.

	Sufficient Knowledge		Mean	SD	t	p
	Knowledge	n				
Fear of Contagion	yes	63	17.032	5.869	-2.612	0.010
	no	150	19.047	4.803		
Negative Feelings	yes	63	12.365	4.209	0.057	0.954
	no	150	12.333	3.458		
Professional Resistance	yes	63	14.683	6.574	-0.454	0.651
	no	150	15.113	6.219		
Total	yes	63	44.079	13.145	-1.335	0.183
	no	150	46.493	11.551		

While there was not a significant difference between professional resistance and negative feelings sub dimension points with regard to students' finding their knowledge sufficient, it was detected that the difference was visible in fear of contagion sub dimension ( $p=0.010$ ) (Table 5).

It was detected that, in terms of considering HIV/AIDS as a threat for themselves, there was a significant difference between fear of contagion and AIDS Attitude Scale total points while there was not a significant difference between the points of negative feelings and professional resistance sub dimensions.

Regarding considering HIV/AIDS as a threat for themselves, the difference between the total points of fear of contagion sub dimension and the

total points is statistically significant. The students think that the risk of contagion from HIV/AIDS patients is a threat for them (Table 6).

Both groups see HIV/AIDS as a threat for our country considering fear of contagion sub dimension and the total. Statistical analysis revealed that this result is highly significant (Fear of contagion sub dimension  $p=0.000$ , total sub dimension  $p=0.007$ ) (Table 7).

A strong relationship between the total and sub dimension points of Willingness to Give Care and AIDS Attitude Scale in a negative way (Table 8).

**TABLE 6:** Comparison of AIDS attitude scale sub dimensions and total points in terms of students' considering HIV/AIDS as a threat for themselves.

	Considering HIV/AIDS as		Mean	SD	t	p
	a Threat	n				
Fear of Contagion	Yes	108	20.093	5.004	4.913	0.000
	No	105	16.762	4.886		
Negative Feelings	Yes	108	12.565	3.875	0.891	0.374
	No	105	12.114	3.484		
Professional Resistance	Yes	108	15.787	6.544	1.889	0.060
	No	105	14.162	5.987		
Total	Yes	108	48.444	12.372	3.348	0.001
	No	105	43.038	11.144		

**TABLE 7:** Comparison of AIDS attitude scale sub dimensions and total points in terms of students' considering HIV/AIDS as a threat for the country.

	Considering HIV/AIDS as		Mean	SD	t	p
	a Threat	n				
Fear of Contagion	Yes	190	18.932	5.109	4.007	0.000
	No	23	14.478	4.326		
Negative Feelings	Yes	190	12.479	3.700	1.556	0.121
	No	23	11.217	3.437		
Professional Resistance	Yes	190	15.142	6.265	1.038	0.301
	No	23	13.696	6.711		
Total	Yes	190	46.553	12.025	2.730	0.007
	No	23	39.392	10.590		

**TABLE 8:** The relationship between AIDS attitude scale sub dimension and total points in terms of willingness to give care.

	Willingness to give care	
	r	p
Total	-0.524(**)	0.000
Fear of Contagion	-0.365(**)	0.000
Negative Feelings	-0.367(**)	0.000
Professional Resistance	-0.486(**)	0.000

## DISCUSSION

Discrimination against individuals with HIV/AIDS is a serious violation of the rights they have as human beings. Healthcare professionals have put forward that they adopt a stigmatizing attitude towards individuals with HIV/AIDS and this results from lack of information about the topic.<sup>2</sup> The most important factor that will prevent prejudices towards HIV/AIDS sufferers and the spread of the disease is informing the society and the healthcare professionals providing this group with health-care.<sup>8</sup>

It was detected in the study that the students have obtained their knowledge from, respectively, schools and teachers, radio and television, newspapers and magazines and, the least, neighbors. This fact shows the importance of schools and teachers in enhancing sensitivity towards HIV/AIDS. In numerous studies conducted, it has been revealed that the media is the most benefitted from as a source of information about HIV/AIDS. Akin et al. (2013), have reported that Turkish nursing students more benefit from healthcare lectures, magazines, internet and radio-television programs on HIV/AIDS at than friends and family.<sup>9</sup> Ouzoni and Nakasis (2012), listed that students mostly use television (80.7%), newspapers and magazines (64.6%), the internet (60%) and course books (57.5%) to get information about HIV/AIDS.<sup>10</sup> It is stated that 52.7% of Jordanian nurses get information about HIV/AIDS from the internet and Saudi nursing students receive information about it from radio and television.<sup>11,12</sup> All the studies we examined show that the source that is most commonly used for ob-

taining information about HIV/AIDS is mass media.

A great majority of the students from both the first grade (92.65%) and the fourth grade (87.01%) stated that they are willing to be informed about HIV/AIDS (Table 1). This outcome reveals that the students have awareness of their lack of knowledge about the subject and the importance of it. The fact that the senior students that are to graduate soon want to learn about HIV/AIDS despite the nursing education they have had is thought to be stemming from their probability of encountering HIV/AIDS patients in their work lives. This concern might have led fourth grade students to feel the need to get more informed in this.

In terms of negative feelings towards HIV/AIDS patients and professional resistance, there was not a significant difference between the first and the fourth graders. However, it was observed that fourth graders had a higher level of fear of contagion ( $p=0,000$ ) (Table 2). It is expected of students that their fear of contagion decreases as their knowledge of HIV/AIDS increases. Yet, in our study, the fear of contagion point average of the fourth grade students is lower than that of the first graders. The first-year students did not receive training on infection, transmission routes and ethical issues during the study period. In the following years, they received both theoretical and practical training on infection transmission issues and ethical approaches to infectious diseases. It is thought that what makes the fear of contagion of the first graders is that they have not performed clinical practices yet while the seniors, despite their increased knowledge about HIV/AIDS, experienced fear due to encountering the risk of contagion perceptibly during clinical practices. Aktaş Özgül and his colleagues (2014), conducted a study on fear of transmission of fourth grade students are lower than in other classes.<sup>8</sup> This result is similar to our findings. Nazik et al. (2012), specify that young nursing students are prominently in a more negative attitude towards HIV/AIDS patients.<sup>13</sup>

The study shows that the areas of residence where the families live have no effect on the atti-

tude of the students towards HIV/AIDS patients (Table 3). The reason for this is the ability of the students to have access to school, teachers and mass media, which are the sources they benefit from most commonly, in all sorts of residential areas.

It is stated that fear of contagion via clinical practices has a negative impact on the willingness to give care to the patients.<sup>14</sup> Our study reveals that the fear of contagion of the students that do not consider their knowledge on HIV/AIDS sufficient is higher than those that do ( $p=0.010$ ) (Table 5). This might be related to a fear of the unknown resulting from not having enough information about HIV/AIDS or thinking that the protective precautions against contagion in clinics are not adequate. Studies have shown that enhancing the knowledge about HIV/AIDS significantly increases attitude points in a positive way and that fear of contagion can be reduced through education.<sup>11,12,14-17</sup>

When the findings related to the sub dimensions of AIDS Attitude Scale in terms of gender are looked at (Table 4), it can be seen that female students have a more positive attitude towards HIV/AIDS patients than male students regarding negative feelings and professional resistance subdimensions. Female students have also significantly higher empathic tendency than male students.<sup>8</sup> Ouzoni and Nakakis (2012), though not having statistical significance, have ascertained that female and older students have more information about and more positive attitude towards HIV/AIDS patients than male students.<sup>10</sup>

It is known that some healthcare professionals refuse to give care to HIV/AIDS patients fearing that they will contract the disease. This unwillingness of healthcare professionals originates from fear, risk perception, knowledge and fear of death. This is a violation to the obligation of healthcare professionals to provide treatment-care as well as the right of individuals to receive care. The fact that the students in our study have not developed negative feelings and professional resistance in spite of fear of contagion makes to believe that they have internalized ethical values and adopted a professional approach in addition to

being mindful about combatting this problem public health. It can be seen that the fear of contagion points of the students that consider HIV/AIDS as a threat have a negative effect on their general attitude points, affecting their attitude towards individuals with HIV/AIDS negatively. Gonca Zeren et al. (2012), put forward that 44.80% of students feel anxious when giving care to HIV/AIDS patients.<sup>17</sup>

Knowledge and attitude, as an important factor related with HIV infection, makes healthcare professionals willingly provide quality and sufficient care.<sup>8,18</sup> In our study, it was determined that there is a strong negative relationship between the willingness of students to give care and AIDS Attitude Scale total points and sub dimension points. Gledovic et al. (2015), suggests that health care workers giving care refrain from giving care to individuals with HIV/AIDS due to the fact that they might carry several infectious diseases related with this one.<sup>19</sup>

It is seen that knowledge about HIV/AIDS has no effect on the negative feelings of the students towards HIV/AIDS patients and their professional resistance (Table 5). This finding, leads to think that nursing students have adopted the ethical principles and the professional ethics law of nursing in terms of providing care for HIV/AIDS patients.

In comparison with those who do not consider HIV/AIDS as a threat for themselves and their country, the students who do have more negative fear of contagion and general attitude (Tables 6 and 7). It is considered that the fact that HIV/AIDS is a fatal infection makes students feel themselves and our country under threat and, affecting their attitude towards HIV/AIDS patients negatively.

Our study shows that as the willingness of the students to give care rises, their negative feelings drops ( $p=0.000$ ) (Table 8). Valimaki et al. (2010), state that among Finn, Estonian and Lithuanian nursing and midwifery students, those that are older and have given care to fictional HIV/AIDS patients have greater willingness to give care to HIV/AIDS patients.<sup>20</sup> Ouzoni and Nakakis (2012), have stated that 43.7% of nursing students are willing to give care to HIV/AIDS patients.<sup>10</sup>

It is stated that there is a positive relationship between the willingness of nursing students, health care workers, nurses and their knowledge. Prior care given to HIV/AIDS patients has a significant positive relationship with care willingness whereas information and perception about the infection ways of HIV does not have relationship with willingness to give care.<sup>15,18,19</sup>

## CONCLUSION

Reducing the fear of nurses is important in terms of protecting the rights of HIV/AIDS patients and increasing the quality of nursing care. Enhancing the information levels of students and a safe working environment in healthcare institutions where the necessary precautions against contagion are taken, getting the students meet HIV/AIDS patients prior to clinical implementations (invitation to lectures, clinic visits) might be effective on reducing the fear of contagion of students and increase the willingness for care. To monitor the change in the knowledge and attitude of students regarding HIV/AIDS, researches should be done periodically and necessary planning should be done in accordance with the results. To monitor the change in the attitude of students towards HIV/AIDS patients according to their grades, research studies encompassing 1., 2., 3., and 4. grade students can be carried out. Qualitative researches that will reveal the reasons of male students adopting more negative feelings and professional resistance than female students should be done.

### Conflict of Interest

Authors declared no conflict of interest or financial support.

### Authorship Contributions

**Idea/Concept:** Nurten Alan, İsmet Eser; **Design:** Nurten Alan, İsmet Eser; **Control/Supervision:** Nurten Alan, İsmet Eser; **Data Collection:** Nurten Alan, İsmet Eser; **Analysis and/or Interpretation:** Nurten Alan, İsmet Eser; **Literature Review:** Nurten Alan, İsmet Eser; **Writing the Article:** Nurten Alan, İsmet Eser; **Critical Review:** Nurten Alan, İsmet Eser; **References and Fundings:** Nurten Alan, İsmet Eser; **Materials:** Nurten Alan, İsmet Eser.

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