

Evaluation of knowledge, attitude and behavior of Turkish university students regarding family planning

*Avaliação de conhecimento, atitude e comportamento de alunos de universidade turca
com relação a planejamento familiar*

*Evaluación de conocimientos, actitud y comportamiento de estudiantes universitarios de Turquía
respecto de planificación familiar*

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ABSTRACT

Research conducted to define general knowledge of university students' attitudes and behaviors about family planning. The sample consisted of 755 Sakarya University students. Data were collected from an open-ended questionnaire form and face-to-face interviews. The data analysis process was conducted using specific software. Most participants (59.7%) were over 22 years old and female, and 1.2 % of the females were married. Women in the study had a positive outlook regarding the positive effects of family planning on sexual health and stated that family planning is important to both society and our economy. The awareness and knowledge regarding family planning was found to be strongest among older participants. The family planning concept was understood correctly by about half of the students. Finally, young people did not have sufficient knowledge about family planning, its methods or where to obtain information on the topic.

Descriptors: Family Planning Services; Adolescent; Knowledge.

RESUMO

Pesquisa foi realizada para definir o conhecimento das atitudes e comportamento dos estudantes universitários sobre planejamento familiar. Estudo envolveu 755 alunos da Universidade Sakarya. Os dados foram coletados de um questionário aberto e técnica face a face. A análise de dados foi feita com um software específico. A maioria dos participantes (59,7 %) com mais de 22 anos foi feminina e 1,2% casadas. As mulheres no estudo têm uma visão positiva dos efeitos do planejamento familiar na saúde sexual e declararam sua importância para a sociedade e economia. A conscientização e conhecimento sobre planejamento familiar foram considerados positivos entre os participantes mais velhos. O conceito de planejamento foi entendido corretamente por cerca de metade dos alunos. Finalmente, os jovens não tinham conhecimento suficiente sobre planejamento familiar, seus métodos ou onde buscar informações sobre o assunto.

Descritores: Serviços de Planejamento Familiar; Adolescente; Conhecimento.

RESUMEN

Investigación que objetivó definir conocimientos generales de estudiantes universitarios y su actitud y comportamiento acerca de planificación familiar. Muestra constituida por 755 estudiantes de la Universidad de Sakarya. Datos obtenidos mediante preguntas abiertas efectuadas presencialmente. Se analizaron los resultados utilizando software específico. La mayoría de los participantes (59,7%) tenía más de 22 años, pertenecía al sexo femenino, 1,2% de ellos estaba casado. Las mujeres participantes poseían una visión positiva del efecto benéfico de la planificación familiar en la salud sexual, y establecieron que la planificación familiar es importante a nivel social y económico. La percepción y conocimientos acerca de planificación familiar resultó ser más positiva entre las participantes de mayor edad. El concepto de planificación familiar era entendido correctamente por aproximadamente la mitad de los estudiantes. Se concluye en que la juventud no poseía conocimientos suficientes sobre planificación familiar, sus métodos o de cómo obtener información respecto del tema.

Descriptores: Servicios de Planificación Familiar; Adolescente; Conocimiento.

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INTRODUCTION

The concept of Family planning (FP) has existed for a very long time, even if in a different sense that we know it today⁽¹⁾. Family planning has many benefits at the family and societal level. Wanted pregnancies and children raised with love, prevention of high-risk pregnancies, increased family prosperity, improved status of the woman, improved healthy living conditions as a society and increased rate of economic development of the country can be cited as examples of these benefits⁽¹⁻²⁾.

Adolescence, defined by the World Health Organization (WHO) as the period between the ages of ten and 24 years, is an important stage of life. A young girl who is not aware of her sexuality is exposed to health risks such as unwanted pregnancies, illegal abortions, miscarriages and sexually transmitted diseases⁽²⁻⁴⁾. One in five of the world's population is an adolescent, 85% of whom live in developing countries⁽⁴⁻⁵⁾. Adolescent pregnancies cause major health problems in both developing and developed countries. The rate of birth among fifteen to nineteen year olds is approximately 54% throughout the world and 46% in Turkey⁽⁵⁾. The 1998 National Census and Health Survey data states that from 1993 to 1998 in Turkey, 23.2 pregnancies out of 100 resulted in a miscarriage, 14.5 of which were intentional⁽⁶⁾.

In a country with a young population, healthy youth means a healthy society. The families who benefit from family planning provide the largest contribution to the overall health of society. Widespread use of family planning in society will result in a reduction of the under-15 consumer group and, therefore, a reduction in unemployment. As a result, a productive society takes shape. Population grows in a stable and planned manner in societies where family planning is implemented effectively. These countries lie near the top in the world socio-economical and cultural status tables and have healthier and more highly developed societies.

The aim of Family Planning is not to reduce the number of births for those countries with a high population, but rather to raise a healthier and happier generation. Experts believe population planning is a necessity for Turkey, because the only way to position a country in terms of economic strength in the technology era is to have qualified human resources. Thus, the basic aim is not to create a problematic population but to

achieve a high-quality society in terms of its education, employment and productivity^(1,7-9). A problematic population is one in which rapid population occurs. As an uncontrolled population increases, there are negative impacts in terms of economic development, nutrition, housing status, education, and environmental conditions.

Current Family Planning methods can be classified as follows: common methods (coitus interruptus – withdrawal; post-coital shower; prolonging breastfeeding), traditional methods (condom; vaginal diaphragm; spermicides – foam, cream, gel; vaginal sponge; cervical mucus method – the Billings ovulation method; body temperature method; rhythm method – periodic abstinence) and modern methods (oral contraceptives – birth control pills; progesterone steroid injections; sub-dermal implants; intra-uterine devices; and surgical sterilization – tubal ligation or vasectomy)^(1,10-11).

Thus the aim of this study is to establish the level of knowledge amongst university students regarding family planning and, in terms of particular contraceptive methods, their access to sources of information and their approaches to the subject. The study also aimed to determine young people's attitudes towards family planning and their knowledge level regarding different methods of birth control. The process of performing a health needs assessment is described and the important contribution of nurses is explored. The investigation focused primarily on the participants' knowledge level and opportunities to access sources of information regarding "contraceptive methods".

METHODS

Descriptive study having the characteristics of cross-sectional research due to the fact that its scope is limited to university students, having been carried out at Sakarya University. Before commencing this study, institutional permissions were obtained.

There are several important rationales for the decision to use a population of university students for this study on family planning. Some of the most important reasons include the fact that most university students are of reproductive age; they may potentially become parents in the near future; and the reality that a number of them will potentially become leaders in

society. There is a limited amount of previous data available in this area within Turkey.

The hypotheses of the study are:

- H₀: The knowledge level of young people regarding family planning is inadequate and their sources of information are limited.
- H₁: There is a relationship between the demographic characteristics of young people and their approaches to family planning.
- H₂: There is a relationship between the characteristics of the participants' own families and their approaches to family planning.

Data was collected from February to June 2009, by face-to-face interviews with students using questionnaire instructions developed in line with the aims of the study. The questionnaire contained both open-ended and closed questions. Open-ended questions were used in the information gathering section, particularly regarding what contraceptive methods there are.

Descriptive statistics and analysis methods for examining relationships were used in data assessment and $p < 0.05$ was found to be statistically significant.

The research universe consisted of almost 40,000 students studying at Sakarya University. Particular care was taken to try and reach students from various faculties and colleges. In creating the sample, education units were evaluated individually according to the number of students, an appropriate sample size was identified and a simple random sampling method was used. In this way, 755 students were invited to participate in the study and then interviewed within the scope of the research objectives. The fact that the study population included only young people from one university was accepted as a limitation.

FINDINGS AND DISCUSSION

Demographic Information

A total of 755 (1.89%) students were interviewed for the study. The demographic characteristics of the sample are as follows: females constituted 59.7% (n=451) of participants and male students numbered 40.3% (n=304). The vast majority were unmarried 98.8% (n=746), with only 1.2% of participants being married (n=9). The age of participants ranged from eighteen to 27, with the majority being 20 years of age or older

(70.8%; n=534); those 22 years of age or older (27.3%; n=206) were the most highly represented group in the sample, with the second highest population composed of 20-year-olds (23.7%; n=179), followed by 21-year-olds (19.8%, n=149). The majority of participants had two siblings (32.3%; n=242) or one sibling (31.9%; n=239). Participants were primarily from the Marmara Region (62%; n=466), followed by the Black Sea Region and the Central Anatolia Region. Family income of these participants was primarily middle income (83.8% ;n=631), according to the students' own statements, followed by 10.4% (n=78) in the low- income group, and 5.8% (n=44) in the high-income group. The reason for most of the respondents being from a middle-income home is that low-income families are not able to send their children to university unless they avail themselves of scholarship opportunities⁽¹²⁾.

Approaches to Family Planning

When the participants were asked what they understood regarding the purpose of family planning, the majority (54.7%, n=398) stated, "only having the number of children you can care for", 29.2% (n=121) cited "population planning", and 10.6% (n=77) stated "birth control". As seen from these results, the full purpose of family planning was not a well-known concept among these young people. Almost half of the students who participated in the study perceived birth control and population planning as equivalent concepts. A natural conclusion about this issue is that female students have more awareness and knowledge.

Family planning is a preventative service that enables families or couples who live together and are not married to determine the number of children they would like to have according to their economic circumstances and wishes. It seeks to ensure that the pregnancies are spaced in line with mother-and-baby health guidelines. The aim is to prevent high parity and short spacing between pregnancies; to counteract the negative impact of such pregnancies on maternal and infant health; to prevent miscarriages induced by dangerous methods in unwanted pregnancies; to provide guidance and support to infertile couples; and to improve maternal and infant health by educating families about modern and medical methods of contraception^(1,2,9).

Family planning reduces the number of pregnancies, improves maternal and infant health, and consequently brings about improvements in social and economic well-being. Mother and Infant Health and Family Planning Centers offer advice and information to families regarding these issues. Today, the terms family planning, birth control and population planning are used interchangeably, which is incorrect. The main aim of birth

or population control is to reduce the high rate of population growth using compulsory and coercive methods for economic reasons, whereas family planning uses voluntary participation as its foundation. In this approach, where there is no compulsion or coercion, the main aim is to protect and improve maternal and infant health⁽¹⁾.

Table 1: Approaches to Family Planning. Sakarya, Turkey, 2009.

	Agree		Undecided		Disagree	
	n	%	n	%	n	%
Family planning is necessary for every society	671	89.2	28	3.7	53	7.0
Family planning is necessary for sexual health	541	74.1	89	12.2	100	13.7
Family planning makes a positive contribution to the economy	630	84.8	60	8.1	53	7.1
Every couple intending to get married should visit a family planning centre for advice	512	69.1	111	15.0	118	15.6
Abortion is a family planning method	68	9.1	93	12.4	587	78.5
Abortion should not be performed unless medically necessary	544	73.0	99	13.3	102	13.5
Family planning prevents free and responsible decision- making	70	9.4	96	12.9	576	77.6
Family planning restricts or prevents reproductive rights	89	12.0	76	10.2	577	77.8
Family planning only concerns women	15	2.0	24	3.2	708	94.8
Family planning only benefits women	35	4.7	36	4.8	675	90.5

"Family planning is necessary for every society" emerged as a widely-accepted statement, with 89.2% (n=671) of the students responding positively. A positive relationship (Pearson chi-square, 19.595, sig. 0.033, df:10) was identified between age and this statement, with a more positive view held by older participants. The chi-square test identified a positive relationship (Pearson chi-square, 27.661, sig. 0.000, df:2) between gender and this statement, with female students expressing a more positive response to this statement.

In a study investigating the knowledge level of university students regarding reproductive health⁽⁸⁾ it was found that 88.4% of students described the reproductive health education in schools as appropriate; the proportion of boys receiving family planning services and reproductive health education is less than girls; the general level of knowledge amongst boys regarding reproductive health is less than girls; and the attitude of boys towards family planning services is more negative. These findings support the results of this study. Although "reproductive health" is a recent term in Turkey, family planning services have been offered since 1965⁽⁸⁾.

The statement *"Family planning is necessary for sexual health"* was supported by 74.1% (n= 541) of the students. A chi-square test showed, despite the high positive ratio, a statistically significant gender difference (Pearson chi-square, 59.859, sig. 0.000, df:2), with the sensitivity of female students significantly higher than that of male students.

Unprotected sex during adolescence results in more frequent occurrences of sexually transmitted diseases. One-third of the 333 million people who develop a sexually transmitted disease in the world each year are under 25 years of age⁽¹³⁾. Women are more susceptible to sexually transmitted diseases, including HIV, than men. More than half of all HIV infections occur in the fifteen to 25 year age group. Undiagnosed and untreated diseases, including pelvic inflammatory diseases and ectopic pregnancy, will often continue to be a problem in later life, sometimes resulting in infertility⁽⁴⁾. These findings are an indication of the existence of a significant issue in this area.

The idea that *"Family planning makes a positive contribution to the economy"* was rated highly with 84.8% (n=630) of the students in agreement. There was a relationship between gender and this statement

(Pearson chi-square: 31.179; sig. 0.000; df: 2). Again, it is observed that female students have a more positive view of this statement. A relationship was also shown between age and response (Pearson correlation, 0.113, sig. 0.002, n=730), with the proportion of those participants who were older expressing a more positive view of this statement.

A t-test also revealed a difference between female and male responses ($F=86.587$, sig. 0.032, n=738). It was observed that more female students agreed with this statement than male students. Most of those who benefit from family planning services are women, and perhaps naming the centers as "mother & infant health centers" may impact those who do not consider family planning responsive to men's needs⁽⁸⁾. Again, there is a relationship between the participant's age and their response (Pearson chi-square, 19.952, sig. 0.030, df: 10), with a greater proportion of positive responses emerging from older participants.

The statement "*Abortion is a family planning method*" received a "disagree" response from 78.5% of the respondents. It was found⁽¹⁴⁾ in another study that the rate of unwanted pregnancy was 33.1%, while the percentage of women who underwent curettage was 30.9%. In South Africa a study⁽¹⁵⁾ reported that when pregnancy often results in young women dropping out of school, abortion may be used as a form of emergency contraception.

The statement "*Family planning prevents free and responsible decision-making*" was rejected by 77.6% (n=576) of the participants. A relationship was identified between gender and response to this statement (Pearson chi-square, 16.420, sig. 0.000, df:2), with more female students expressing a lack of agreement with the statement. This suggests that female students are more knowledgeable in this area. This also indicated that even though the proportion of those who disagreed with this statement was 77.6% overall, there was still a significant percentage of young people who did not have enough knowledge regarding the ways in which family planning can actually assist in decision-making.

The statement, "*Family planning restricts or prevents reproductive rights*" was rejected by the majority of participants (77.8 %, n=577). A gender relationship was observed (Pearson chi-square, 26.314, sig. 0.000, df:2), with more female students disagreeing with the statement than male students. Overall, it has been

shown that young people are not educated enough regarding family planning and reproductive rights. Also, ideological opinions, quality of service issues and regional beliefs are among the reasons why some students find family planning services to be inappropriate⁽⁸⁾.

The statement "*Family planning only concerns women*" was rejected by 94.8% of all respondents, which was a welcome outcome for the researchers. This may indicate greater awareness amongst young university students regarding gender equality and sharing of responsibilities. Despite the very high agreement with this statement, a gender relationship was still established (Pearson chi-square, 14.054, sig. 0.001, df:2), with female students displaying higher disagreement with the statement. International research emphasizes that the maternal mortality rate can be reduced by 30-40% by implementing family planning programs. The mortality risk for women of reproductive age during pregnancy and childbirth, as well as the postpartum period, is one in 189 in Turkey. Again, it is known that approximately half of all pregnancies in Turkey are unplanned and unwanted and that only 34.5% of married couples use modern contraceptive methods⁽⁷⁾.

Knowledge Level Regarding Contraceptive Methods

In the study, students were asked to write down the contraceptive methods of which they were aware. The results indicate that the methods intended for use by women are more widely known.

Table 2: Knowledge Level Regarding Contraceptive Methods Intended for Women. Sakarya, Turkey, 2009.

Contraceptive Methods Intended for Women	Yes		No	
	n	%	n	%
Contraceptive Pill	405	88.8	51	11.2
Injection	101	22.3	351	46.4
Condom	16	3.5	436	96.5
Vaginal cap	6	1.3	446	98.7
Norplant (Subdermal Implant)	15	3.7	386	96.3
Calendar Method	10	2.5	391	97.5
Diaphragm	12	3.0	389	97.0
Tubal ligation	63	13.9	389	86.1
Spermicides	21	5.3	379	94.8
IUD (Intra-Uterine Devices)	225	49.9	226	50.1

As seen in Table 2 above, in terms of the level of knowledge regarding contraceptive methods intended for women, the pill takes first place, with IUDs (Intra-Uterine Devices) taking second place and injections following in third place. The "pill" takes first place, as it is easy to obtain and use by the individual. Injection takes second place, followed by tubal ligation. The oral contraceptive pill (OCP) (85.8%), injectable contraceptives (85.3%), and the intra-uterine contraceptive device (IUCD) (56.0%), were most widely known and the findings of this study are similar to other findings⁽¹⁶⁾.

Condoms (83.5%) were the most frequently mentioned contraceptive method intended for men. Vasectomy (11.2%) was the second most common method, and the withdrawal method (8.1%) was the third most common. In another study⁽¹⁷⁾ the condom is the most commonly known family planning method (80%), followed by abstinence (14%), oral contraceptive pills (5%), "coitus interruptus" (4%) and the rhythm method. Oral contraceptives (pills) are at the top of the list of contraceptive methods for women under the age of 30 in the USA⁽¹⁸⁾. It is reported that increased use of contraceptive pills and injectable hormones are linked to the rise in the occurrence of HIV and other sexually transmitted diseases (STD), which would otherwise be prevented by "barrier" methods of contraception, primarily the use of condoms. Pregnant women, women with multiple partners and women susceptible to STDs are advised to use condoms in addition to the pill⁽¹⁸⁾. Another result derived from the findings is that, contrary to the general situation in Turkey, there is relatively little reliance on traditional methods among the young people surveyed. In Turkey (in general), the most preferred

family planning methods are: traditional method (withdrawal) (24.4%) followed by IUD (19.8%), condoms (8.2%) and the pill (4.4%)⁽¹⁹⁾. This indicates that the less reliable traditional methods are preferred at a higher rate to the more effective modern methods amongst the greater population. The results of our study also indicate a need to focus on educating young people about modern family planning methods. A previous study revealed the best-known contraceptive methods were: oral contraceptives (65%), injectable forms of birth control (60.2%), condoms (53.7%) and intra-uterine devices (53.3%)⁽²⁰⁾. This is in agreement with our data.

It is deduced⁽²¹⁾ that adolescents don't use sufficiently effective contraceptive methods during intercourse, although condoms are the best-known method used by adolescents. Another study⁽²²⁾ found that, in investigating the knowledge level of adolescents regarding family planning and sexually transmitted diseases (in Turkey), students listed, in the following order: "the pill" (77.4%), "condom" (68.7%) and "intra-uterine device" (56.4%); girls' knowledge levels regarding family planning was 8.9 ± 0.2 and the boys' knowledge level was 3.4 ± 0.1 . There was a statistically significant relationship between gender and knowledge level ($p = 0.000$). The above results are similar to our study. In conclusion, the knowledge level of both genders regarding family planning and sexually transmitted diseases was found to be low. It is evident that adolescents and males in particular are at significant risk in terms of sexual health problems they may encounter in the future.

The rate of birth among fifteen to nineteen year olds is approximately 46% in Turkey, and pregnant adolescents generate more than half of the world

population⁽⁵⁾. Therefore, it is important to inform young married views regarding family planning methods. Although this is a different population the findings have relevance because, in other studies aiming to establish knowledge, attitudes and behaviors of married women (in Turkey) regarding family planning, when asked which family planning methods they are aware of the women responded that they knew about IUDs (89.2%), condoms (76.1%), contraceptive pills (69.8%), tubal ligation (52.2%), withdrawal (51.1%), injections (48.9%), calendar method (25.9%), spermicides (22.4%) and vasectomy (20.5%)⁽²³⁾.

An important finding of this research was that nearly three-quarters (71%) of the participants had no knowledge regarding the existence of a Family Planning Centre (FPC) in the province in which they lived.

The responsibility falls on the health professionals' team within the University to raise awareness in this respect. Young people need to be reminded that individuals seeking advice regarding family planning services have the right to information, service, security, privacy, confidentiality, respect, comfort, continuous service and their own personal opinion^(2,24).

When young people's main sources of information regarding family planning and contraception was investigated, mass media (TV, radio, newspapers, magazines, etc.) appeared to be the prominent source of basic information, followed distantly by school (18.8%). A higher number of participants indicated no sources were used (14.3%) compared to family (8.7%), friends (7.0%), the Internet (4.0%) or family planning centers (2.1%). A gender relationship was identified (Pearson Chi-square: 58.264, df: 8, Sig. 0.000). The level of information received from family members is lower amongst male respondents than amongst females, and female respondents were more likely than males to obtain information from their friends.

On the other hand, a difference in sources of information according to income was identified through an ANOVA test ($F=4.153$, sig.0.016). This can be explained by the education level of the family, the education opportunities of the child and the child being given the freedom to express him/herself.

In a study investigating the knowledge of adolescent students regarding contraceptive methods, the authors⁽²⁵⁾ state that most of the students in state schools are from a low socio-economic background and

those who are older, sexually active women/females (these are not young girls), and those from a high socio-economic background have a greater level of knowledge. These findings are also in parallel to the findings in our study. Other studies⁽²⁰⁾ identified that the most common sources of information amongst sexually active fifteen to 49-year-olds ($n=1,647$) were friends (34%), radio (11.5%) and their partners (10.2%).

The knowledge level amongst adolescents regarding sex and sexual health has been found to be inadequate. In many countries, adolescents receive limited information on reproductive health in the education institutions they attend, while their sources of information regarding reproductive health are friends, mass media and family⁽¹³⁾. This is in parallel with the results of our study. Inaccurate or inadequate information obtained from these sources may result in the young person adopting unsafe sexual behavior. In order to prevent this outcome, attention must be focused on correct and effective use of information sources, such as educational institutions and mass media.

The widespread availability of accurate information will contribute greatly to the state of reproductive health in our country through correct information reaching this age group, using the correct methods in the correct places via the correct people. It is inevitable that information will be inaccurate and incomplete when the sources of information are friends or neighbors.

The importance of having an adequate level of information regarding these subjects is evident. Unsafe sexual behavior and lack of information frequently results in unwanted pregnancies, intentional miscarriages, abandoned children and maternal and infant mortality, as well as social and economic hardship⁽¹⁷⁾.

CONCLUSION

Family planning is a concept with social and economic dimensions that is the focus of public health policies in both developed and developing countries. It emerges as a concept that requires greater attention in a country such as Turkey, where a considerable proportion of the population is young; healthy youth is synonymous with a healthy society.

The aim of family planning is not to reduce the population of a country but to raise a healthier and

happier generation. The results of the present research may be summarized as follows: The fact that only 54.7% of surveyed students are able to describe the concept of Family Planning accurately indicates that they do not have adequate knowledge. The majority (89.2%) of students agreed that family planning is necessary for every society. 74.1% state that family planning is necessary for sexual health. 73% state that abortion should not be performed as a family planning method unless medically necessary. 94.8% disagree with the statement that family planning only concerns women. On investigating the level of knowledge regarding the methods used for family planning, the best-known methods intended for women are the pill (88.8%) and IUD (49.9%). Among the methods intended for men, knowledge of condoms was highest (83.5%) followed by the withdrawal method (8.1%). Seventy-one percent of our students are not aware that there is a Family Planning Centre in our province, while 45.2% of students stated that they acquired information regarding family planning from the media.

Nurses are an important component of health education. Nurses play a key role in successfully launching and sustaining health-related behavioral changes of individuals. Therefore, health care providers,

particularly nurses, must provide the adolescents with knowledge regarding contraception, free of charge, by means of appropriate information and advice, taking into account the social and cultural values.

Raising awareness among adolescents, their families and teachers regarding major reproductive health problems seen during adolescence, sexual development problems, sexually transmitted diseases, family planning methods, counseling services and responsible behavior should be the goal of healthcare practitioners. Changing established attitudes and behaviors towards male children and adults regarding gender roles and responsibilities, and generating policies and implementing programs including education initiatives in order to promote gender equality and positive attitude and behaviors, is necessary. Adolescent males begin their sexual life earlier and often have more partners than females. Therefore, young men should be informed about reproductive health, sexuality and family planning methods. This will help to ensure that men take equal responsibility for family planning along with women and help to reduce the occurrence of unwanted pregnancies and sexually transmitted diseases. It should be noted that investment in adolescents is investing in the future of the country.

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Artigo recebido em 20/08/2010.

Aprovado para publicação em 27/12/2011.

Artigo publicado em 30/09/2012.