SCREENING AND COUNSELLING CLINIC EVALUATION PROJECT

Valerie Gilbey

If health care costs are to be contained, it is essential to focus on the promotion of health. Preventive health services receive a disproportionately small part of the health care budget. For every dollar spent on illness, less than five cents goes toward health promotion and disease prevention (Rachlis & Kushner, 1989). In *A New Perspective on The Health of Canadians* (Lalonde, 1974), health promotion was one of the priority strategies outlined, yet health promotion has met with more talk than action. Overwhelmingly, the so-called health care budget has been devoted to illness care. At a recent conference on "Healthy Public Policy", it was stressed that health promotion and disease prevention measures may contribute more to the improvement in health status than does medical care and therapeutics and that prevention programs need to be evaluated for program effectiveness (Carlson, 1985). Since 1979 senior nursing students have been acquiring clinical experience in a screening clinic for adults, which is conducted under the auspices of the Faculty of Nursing at the University of New Brunswick. It seemed appropriate to evaluate the effectiveness of the clinic in terms of its impact on the health behaviour of participants.

Literature Review

The community health nurse traditionally has functioned in primary health care. This health care, which is described as essential health care made universally accessible to individuals and families in the community, by means acceptable to them, through their full participation and at a cost the community and country can afford, reflects the nurse's role (WHO, 1978). It is the first level of contact of individuals, the family and the community with the health system. The expanded role of the nurse as the agent of primary care in helping people reach the goal of "Health for All" has been advocated (Mahler, 1978).

Self-care is one mechanism for achieving "Health for All" (Epp, 1986). Self-care refers to decisions and actions initiated and controlled by individuals. Thus, people should be equipped with health information and manage-

Valerie Gilbey, B.N., M.Sc.(Health), is Associate Professor in the Faculty of Nursing, at the University of New Brunswick, Fredericton.

ment skills so that they can make informed decisions; self-care has been viewed as an empowerment strategy (Health and Welfare Canada, 1989).

Rachlis and Kushner (1989) state that "most people would make sensible decisions if they were given accurate and understandable information and were supported" (p.298). House (1981) defines four broad classes of supportive behaviours: emotional support (concern and caring), appraisal support (feedback and affirmation), informational support (suggestions and information) and instrumental support (practical help). Community health nurses provide all aspects of these supportive behaviours. They state that the well-informed consumer needs accurate information presented in understandable language. Nursing requires time spent with patients and since nurses are well prepared in counselling and teaching roles; as such, they should be the primary agent in preventive care (Rachlis & Kushner, 1989). Furthermore, the results of The Active Health Report (1985) indicated that four million Canadians felt they needed more information on one or more health topics. Nurses are seen as valuable sources of health information (Heller, 1986).

A Canadian task force recommended "health protection packages" for each stage of life that included a combination of screening tests, vaccinations and counselling to prevent disease or catch it early (Health and Welfare, 1980). Policy makers believe that "lifestyle" is the most promising areas for preventive efforts (Lalonde, 1974; Russell, 1986). The identification of risk factors, as occurs in the Health Hazard Appraisal (HHA), may heighten the awareness of vulnerability and sensitizes individuals to the need for change. It may create a "teachable moment" when the nurse and client work together to plan realistic lifestyle changes. The literature indicates that risk reduction programs have been shown to be effective in stimulating lifestyle changes (Alexy, 1985). Furthermore, research does show that setting goals for risk reduction can be effective in changing behaviour (Alexy, 1985) and that encouragement and support help maintain the change (Gazda, Childers & Walters, 1982).

Thus, as nurses work with clients they should be cognizant of teaching opportunities that promote health. Health promotion is the process of enabling people to increase control over and improve their own health (Epp, 1986). The empowering and enabling aspects of improving health lend themselves well to a service in which professional nurses are responsible, accountable and autonomous providers (Maglacas, 1988). However, Maglacas emphasizes that "nursing will need to develop new skills and specializations in enabling and empowering people for self-care, self-help, and environmental improvement and in promoting positive health behavior and appropriate coping abilities of people to maintain health" (p.71).

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Background

Health is a curriculum strand in the baccalaureate program of the Faculty of Nursing, at the University of New Brunswick. Over the four years there is increasing emphasis on health promotion in order to enable the graduates to function as community health nurses, as well as acute care nurses. As one part of their clinical experience, senior nursing students conduct screening clinics wherein interested adults from the community come for health assessment and counselling.

Initial attendance at a screening clinic comprises three visits, over a six-week period. The assessment measures undertaken are a health history, HHA, height and weight, blood pressure, Fit Kit, haemoglobin, urinalysis, and vision and hearing tests. Client problems are categorized using the *Omaha Problem Classification System* (Martin, 1988). In this system, client problems (actual or potential) fall into one or more of four domains - namely environmental, psychosocial, physiological or behavioral. The student works with the client in determining how the identified problems can best be changed and what type of realistic goals can be set in order to measure that change. Incidental teaching is carried out on all visits, with more formalized teaching on the final visit. The student discusses with the client the HHA results and the implications of the identified health risks and suggests strategies for change.

Modifying health related behaviours is a complex and difficult problem. Senior nursing students are able to promote self-responsibility by providing current health information, by counselling regarding health problems or risks and by encouraging lifestyle changes that will promote health. Students and clients work in partnership in decision making. Thus, clients are encouraged to become informed consumers and to develop personal control through increased participation in all aspects of their health.

Statement of the problem

The question posed was "Have those persons who have attended screening clinic changed any health behaviours or resolved any problems that were reported by the client and/or detected by the nurse at the initial series of visits?".

Method

All those who had attended an initial series of visits, as described above, received a letter describing the Screening and Counselling Clinic Evaluation Project. It was indicated that names would be chosen randomly and those whose names were selected would be contacted by telephone to determine

their willingness to return to clinic. For those who were interested two 75-minute appointments were scheduled during which assessment measures undertaken earlier were repeated.

At the beginning of the first visit, the student obtained a written consent indicating willingness to participate in the evaluation project (witnessed by instructor). The student then completed a HHA form and a questionnaire based on information provided by the client. The client's height, weight, blood pressure, haemoglobin, urinalysis and fitness level were assessed. The student inquired about the current situation with regard to each of the problems identified on the initial series of visits and any new problems which may have arisen.

The Body Mass Index (BMI) was used to calculate the quetelet index, which is the most popular and precise measure for evaluating weight status as it measures central fat which is believed more important for risk of chronic disease than peripheral fat (Millar, 1987). A limitation of the BMI is that it varies slightly with an individual's stature, body proportions and the lean and fat compartments of the body.

At the second visit, vision and hearing assessments were completed and the results of the repeated HHA were discussed with the client. This computerized assessment tool (HHA), which is furnished by Health and Welfare Canada, estimates the individual's probability of injury, disease or death during the ensuing ten years, for each of the major causes of death, compared to others in the same age-gender group. The results, which include the client's own relative risks plus a prescription for change, were used to help the client comprehend the magnitude of the risks. It has been suggested that the HHA may be a motivational tool in initiating change (Gupta, McMahon & Sandhu, 1985) and that the HHA would probably be most effective where there is presentation and discussion of feedback by a health professional using cognitive and behavioural interventions in a motivating setting (Becker & Janz, 1987). Also, health information was provided on any topic about which the client was concerned.

After the two visits had been completed, the test results were transferred to a summary sheet which contained only the client's number. Thus, confidentiality was maintained.

Statistical analyses included: a paired t-test to determine significant differences in client health status between initial and return visits; and, a chi-square test (X^2) to determine whether any significant relationship existed between the type of problems resolved by women and men.

Limitations

There were unavoidable and unmeasurable elements of inconsistency in the data because of individual differences amongst the care givers. Each client was seen by two students, one for the initial visits and one for the return visits. Moreover, because the range of competencies varies amongst students, some clients may have been assessed and counselled more skillfully than others. There are, however, two compensating mechanisms for this limitation. First, the standardized health problem classification system ensured considerable consistency in the categorization of health problems. Secondly, all students were under the direct supervision of a clinical instructor who monitored student activities to the extent necessary to assure an acceptable standard of care. Because the intention was to assess the effect of visiting the clinic rather than to evaluate student performance, and because differing abilities of personnel are an inevitable part of any clinic setting, this limitation was not regarded as sufficient to invalidate observations made.

Evaluation time frame

The evaluation project was carried out during the Fall term, 1986 and the Winter term, 1987. The time frame between the initial and follow-up visits ranged between one and three years.

Population

The subjects were drawn from a pool of 117 clients who had been to the clinic for the initial visits but not for return visits. In total, 65 randomly selected clients were contacted until a total of 56 clients were scheduled for return visits. The sample size was determined by the number of students requiring clinical experiences. Of the 65 persons contacted, 6 were unable to attend because of conflicting commitments and 3 did not wish to attend at that time. Of the 56 clients in the study, 25 were female and 31 were male. The majority of clients were middle-aged (66%); 18% were 24-34 years; 39%, 35-45 years; 27%, 46-56 years; and, 16%, 57-73 years.

Results

Research Question 1: Have those persons who have attended screening clinic changed any health behaviours?

An overview of clients' health status at the times of the initial and return visits is given in Table 1. On the whole, the client population was fairly healthy. At the initial visit, 91% of clients had a normal blood pressure; 82% had a pulse rate below 80; 96% of the females and 90% of the males had a

normal haemoglobin level (female 120-159, males 140-175); 88% were non-smokers; 82% used their seatbelts all of the time; 62% did not use alcohol regularly; 61% completed the Fit Kit test at the recommended level; however, 55% were overweight and 64% of females did not perform BSE regularly.

Assessment of clients' health on the return visit indicated that there were only a few changes in the assessment measures. Of the 5 clients who had a high-normal blood pressure level, 2 had lowered their blood pressure to normal; 7 clients had reduced their consumption of alcohol from 7-12 drinks/week to drinking only occasionally, however, 2 clients increased their drinking; and, 1 of the 7 smokers had quit smoking. The one change that was statistically significant was clients' increase in haemoglobin ($t=1.92$, $df=55$, $p=.03$).

Another indication in clients' health at the time of the visits is seen in Table 2. Specific recommendations for actions (lifestyle changes) that individuals could undertake in the hopes of lowering their risk factors were as follows: 66% were advised to reduce weight (1-33 kilograms) with the majority (73%) having to lose 1-15 kilograms; 38% were advised to reduce their daily consumption of alcohol from 7-21 drinks/week to 3-6 drinks /week; 23% were advised to increase their fitness level; 13% were advised to quit smoking; 17% were advised to use seatbelts all of the time; and, 29% of the females were advised to perform BSE monthly. However, on the return visits there were relatively few changes in the HHA recommendations. (The HHA recommendations are based on stricter weight guidelines that accounts for the discrepancy between numbers identified by BMI in Table 1). More clients were advised to lose weight on the second HHA recommendations. There was no significant correlation between weight change and haemoglobin change (Pearson Correlation Coefficient/$r=-0.10025$, $p=.46$).

Research Question 2: Have those persons who have attended screening clinic resolved any problems that were reported by the client or detected by the nurse at the initial series of visits?

To put this into a different context, rather than looking at clients' health status, an overall view of the management of problem resolution is examined. A total of 340 actual or potential problems (Table 3) were identified during the initial series of visits. The average number of problems per client was six, the range was two to nine problems. For each domain, the number of problems were: Environmental, 2; Psychosocial, 41; Physiological, 100; and, Behavioural, 197.

Table 1

Assessment of Clients' Health

	Initial Visit		Return Visit	
	#	%	#	%
Body Mass Index				
acceptable weight	25	(44.7)	26	(46.4)+
overweight	23	(41.1)	23	(41.1)+
obese	8	(14.3)	7	(12.5)+
Blood Pressure				
high (140-160/90-102)	5	(8.9)	3	(5.4)
normal (79-139/50-89)	51	(91.1)	53	(94.6)
Pulse Rate				
44 - 65	15	(26.8)	20	(35.7)
66 - 79	31	(55.4)	23	(41.1)
80 - 108	10	(17.9)	13	(23.2)
*Haemoglobin Level				
105 - 119	1	(1.8)	3	(5.4)
120 - 139	18	(32.1)	11	(19.6)
140 - 159	33	(58.9)	34	(60.7)
160 - 175	4	(7.1)	8	(14.3)
Alcohol/drinks/week				
none	35	(62.5)	40	(71.4)
7-12	17	(30.4)	11	(19.6)
13-21	4	(7.1)	3	(5.4)
22-35	0	(0.0)	2	(3.6)
Fit Kit				
recommended	34	(60.7)	33	(58.9)
minimal	13	(23.2)	12	(21.4)
undesirable	3	(5.4)	2	(3.6)
not done	6	(10.7)	9	(16.1)
Smoking Status				
never smoked	30	(53.6)	30	(53.6)
ex-smoker	19	(33.9)	20	(35.7)
smoker	7	(12.5)	6	(10.7)
Seatbelt Use				
wears 100% time	46	(82.1)	48	(85.7)
51-99%	4	(7.1)	1	(1.8)
0-50%	6	(10.7)	7	(12.5)
Practising B.S.E.				
regularly	8	(32.0)	9	(36.0)
occasionally	1	(4.0)	2	(8.0)
no exam	16	(64.0)	14	(56.0)

* t=1.92, df=55, p=.03
+ there was weight increase within the categories

Table 2

Health Hazard Appraisal Recommendations

	Initial Visits		Return Visits	
	#	%	#	%
Wt. Loss				
none	19	(33.9)	14	(25.0)
1- 6 kg.	10	(17.9)	12	(21.4)
7-15 kg.	17	(30.4)	20	(35.7)
16-24 kg.	9	(16.1)	8	(14.3)
25-33 kg.	1	(1.8)	2	(3.6)
Reduction of Drinks/week				
none	35	(62.5)	40	(71.4)
from 7-12	17	(30.4)	11	(19.6)
from 13-21	4	(7.1)	3	(5.4)
from 22-35	0	(0.0)	2	(3.6)
Increase Fitness Level				
no recommendation	43	(76.8)	38	(67.9)
from undesirable	2	(3.6)	2	(3.6)
from minimal	7	(12.5)	11	(19.6)
from occasional	4	(7.1)	5	(8.9)
Quit Smoking				
none	49	(87.5)	50	(89.3)
cigarettes	7	(12.5)	6	(10.7)
Seatbelt Use				
none	46	(82.1)	48	(85.7)
from 0-50% of time	4	(7.1)	1	(1.8)
from 51-99% of time	6	(10.7)	7	(12.5)
Perform BSE				
none	10	(40.0)	9	(36.0)
from no exam	14	(56.0)	14	(56.0)
from occasional	1	(4.0)	2	(8.0)

Changes were proposed for 92% of the problems (312 problems). At the time of the return visit, 32% of these problems had been resolved or corrected, 38% as somewhat relieved or corrected and 30% as the same (Table 4). Thus, clients experienced some relief or better for 70% of the problems for which they could take action.

There was no significant difference in the number of problems resolved or relieved between women and men (x^2=1.19694, df=1). However, there were differences in the types of problems experienced by women and men. More women had psycho-social problems (women 61%, men 39%) although men had more physiological problems (41%/59%) and more behavioural problems (46%/54%).

For 38% of the problems where changes were proposed, no action was taken (Table 3). It was in the behavioural domain that the greatest action was taken yet the clients had the least success with the resolution of health behaviour problems (Table 4).

A brief reference will be made to the first three domains with greater emphasis being given to the behavioural problems because the majority of the identified problems were in this domain (58%).

Environmental domain

Two clients had environmental problems (allergens) but only one was advised to take action (Table 3). This person, who was advised to take action, did so and had experienced some relief at the time of the return visit (Table 4).

Psycho-social domain

Forty one psychosocial problems had been identified on the initial visit (Table 3). The types of problems were: seeking knowledge of human physiology or disease process (22); encountering stress or anxiety(12); and, experiencing role change or social isolation (7). More females sought health information than males (17/5). Changes were proposed for 33 of the problems and at the time of the return visit, 45% of these 33 problems had been resolved, 31.5% somewhat relieved and 23.5% reported no relief (Table 4).

Physiological domain

One hundred physiological problems had been identified on the initial visit (Table 3). One-third of the clients' physiological problems were related to hearing (16) and vision (17). Twice as many men (11/5) had hearing impairment (abnormal results of hearing screening tests or tinnitus). Other physiological problems were circulatory (16), urinary (12), digestive and bowel (8), pain (8), respiratory (6), reproductive (6), neuromuscular (4), integument (4), and dental (3). Changes were proposed for 88 of the problems and at the time of the return visit, 37% of these problems were resolved, 24.5% were somewhat relieved or corrected and 38.5% reported no relief (Table 4).

Behavioural domain

One hundred and ninety-seven health behaviour problems were identified on the initial visit (Table 3); changes were proposed for 190 of the problems (96%). At the time of the return visit, 30% of these problems were resolved or corrected, 26% were somewhat relieved or corrected and 44% reported no relief.

Because the majority (58%) of the total problems were in the health behaviour domain, these problems are considered in more detail (Table 5):

Nutrition impairment: poor diet or overweight. Nutrition impairment was the major concern with 30 problems relating to "poor diet/requires knowledge" and 25 relating to "overweight". On the return visit, 70% of the "poor diet/knowledge" problems were either resolved or partially relieved. However, only 20% of the "overweight" problems were either resolved or partially relieved; almost an equal percentage of women and men had not lost weight (82%/77%).

Preventive practice. The second major group of behavioural problems was preventive practice (BSE or Pap smear; TSE or PAP test; seatbelts; immunization; and, flossing). Of the 48 problems, only 39% had been resolved or partially relieved (regularly or occasionally practising one or more of the above preventive measures) at the time of the return visit. More men than women experienced no relief (70%/52%).

Physical activity. More males than females experienced the problem of lack of physical activity (16/10). At the return visit, 71% of the problems had been resolved or partially relieved. More women than men had not improved their fitness (40%/18%).

Substance misuse. Of the 25 substance misuse problems (alcohol, nicotine, caffeine) identified, 52% of these problems were resolved or partially relieved at the time of the return visit and 48% experienced no relief. More men than women experienced no relief (70%/18%).

Therapeutic regimen noncompliance. Twice as many men as women (15/7) had a problem with therapeutic regimen noncompliance (fails to seek care, to perform treatment) with 76% of the clients improving their compliance for treatment. More men than women were still noncompliant at the time of return visit (33%/14%).

Sleep and rest and personal hygiene. Of the nine sleep and rest problems and the 9 personal hygiene problems, 75% were resolved or partially relieved. Overall, in the behavioural domain, 57% of the female clients and 52% of

the male clients had gained some relief or had resolved their problems. Female clients experienced less relief in the area of physical activity, whereas males experienced less relief in preventive practice, substance misuse and therapeutic regimen noncompliance. Females and males were equal in their failure to lose weight.

Table 3

Client Problems Identified at Initial Visits

Type of Problem	# of Problems	Changes Proposed		Action Taken		
		Yes	No	Yes	No	N/A
Environmental						
Female	1	0	1	0	0	1
Male	1	1	0	1	0	0
Psychosocial						
Female	25	21	4	13	8	4
Male	16	12	4	3	9	4
Physiological						
Female	41	38	3	22	16	3
Male	59	50	9	31	19	9
Behavioural						
Female	90	87	3	56	31	3
Male	<u>107</u>	<u>103</u>	<u>4</u>	<u>67</u>	<u>36</u>	<u>4</u>
Total	340	312	28	193	119	28

Rows are highly correlated because individuals appear in more than row.

Table 4

Client Problem Status per Domain at Return Visit

Type of Problem	# of Problems	Resolved	Some Relief	No Relief
Environmental				
Female	0	0%	0%	0%
Male	1	0%	100%	0%
Psychosocial				
Female	21	48%	38%	14%
Male	12	42%	25%	33%
Physiological				
Female	38	32%	29%	39%
Male	50	42%	20%	38%
Behavioural				
Female	87	33%	25%	41%
Male	<u>103</u>	<u>27%</u>	<u>27%</u>	<u>46%</u>
Total	312	32%	38%	30%

Rows are highly correlated because individuals appear in more than one row.

Discussion

The problem of self-selection is inherent in this type of study; by that virtue, the group of clients might be more health conscious and not necessarily representative of the general population. The literature indicates that self-report is not an accurate measure of compliance, thus, validity of client responses has to be considered. However, to some extent, clients' reports can be verified by whether or not there were changes in the measures tested: for example, their haemoglobin levels.

One significant difference in clients' health at the time of the return visit was an increase in haemoglobin. Incorrect reading could have been a factor because the nursing students were learning the procedure. However, this possibility was controlled for by the instructor who confirmed the reading prior to the results being given to the client.

Table 5

Behavioral Problem Status at Return Visit

Type of Problem	# of Problems	Resolved	Some Relief	No Relief
Nutrition: Poor diet				
Female	13	23%	46%	31%
Male	15	53%	27%	20%
Nutrition: Overweight				
Female	11	9%	9%	82%
Male	13	0%	23%	77%
Preventive Practice				
Female	25	36%	12%	52%
Male	23	17%	13%	70%
Physical Activity				
Female	10	30%	30%	40%
Male	16	19%	63%	18%
Substance Misuse				
Female	11	36%	45%	18%
Male	13	15%	15%	70%
Therapeutic Regimen Noncomp.				
Female	7	57%	29%	14%
Male	15	53%	13%	33%
Sleep & Rest				
Female	4	25%	25%	50%
Male	5	40%	60%	0%
Personal Hygiene				
Female	6	67%	17%	17%
Male	<u>3</u>	33%	33%	33%
Total	190			

Rows are highly correlated because individuals appear in more than one row.

As part of the haemoglobin-taking procedure, students explained thoroughly the significance of the test, counselled clients about their nutritional habits and advised iron-rich foods as necessary. Clients' intake of iron-rich foods was not assessed however, apart from their total food intake. It appears that the impact of nursing students' teaching with regard to nutrition may have been a factor in the haemoglobin change and in the resolution or relief of a majority of the poor diet, requires knowledge problems.

The majority of the problems relating to overweight were not resolved. Furthermore, lack of fitness had not improved. More males had problems related to overweight and lack of fitness. Because the majority of the clients were middle aged and because metabolic rate declines with age, greater emphasis may need to be given to exercise and fitness.

More women sought health information than men. Previous research indicates that, as health guardians in the home, women need more general health information for all aspects of health and for all stages of the life cycle (Heller, 1986). Do female clients want more time to be allowed for counselling and teaching than male clients? If so, nurses will need to spend more time in determining female clients' learning needs and to allow extra time for both incidental and structured teaching.

The Omaha Problem Classification System allows nurses to look at the type of problems they work with in any health setting. Further study should examine the different types of health concerns that women and men generally have in a health clinic, and which change strategies are most effective in helping clients become more responsible for their health. Changing health behaviour is a process that requires a variety of teaching and learning opportunities to influence the knowledge, attitude and skills of the client. Long-term behaviour change is difficult. When clients returned to the clinic for reassessment, considerable time had lapsed (from one to three years). As the data indicate, many clients had not maintained the change. Most people do not suddenly alter health lifestyle; they should become increasingly aware of the need for change, the need to increase motivation, and then follow with a series of change attempts before ultimate success (Best, Cameron & Grant, 1986). A more systematic follow-up might provide success for clients by encouraging greater action. Furthermore, the Omaha Problem Classification System lends itself to consistent monitoring of clients' progress over time, which should expedite the follow-up process.

The percentage of problems for which clients did not take initial action was fairly high (38%). In the first two visits considerable time is spent on screening, assessment and incidental teaching, with greater emphasis on counselling and teaching on the third visit. Assessment serves as a vital function in the health promotion process, but there is a need to strike a healthy balance between assessment and behaviour change strategies (Terry, 1987). The six-week turn-around time for the HHA results from Ottawa had been a determining factor for more structured teaching being done in the final visit, thus no reinforcement. In the future, the student will be computing the Evalu Life program with the client, on the first visit, and the results will be available immediately. Thus, the HHA will not only serve as a health assessment tool but as a catalyst for change early in the series of visits where potential and actual problems can be identified, and where counselling and teaching can occur, with reinforcement, on the subsequent visits.

Conclusions

Maglacas (1988) challenges nursing to develop new skills in enabling and empowering people for self-care, and in promoting positive health behaviour and appropriate coping abilities to maintain health. Olivieri and Ouellette (1986) stress that it is in the educational setting that the responsibility for development of the role of the nurse in primary prevention and health promotion must begin. This screening clinic experience for fourth-year nursing students attempts to meet these challenges. Furthermore, the clinic provides a service to the public. As the students become capable primary care practitioners, the clients become informed consumers; they develop personal control through increased participation in aspects of their health.

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RÉSUMÉ

Projet d'évaluation du service de dépistage

Dans le cadre de leur formation pratique en milieu clinique, des étudiants en sciences infirmières en fin de programme offrent aux adultes de la collectivité des services d'évaluation de leur état de santé et des services de counseling dans le cadre d'une consultation de dépistage. Cette consultation a pour double objectif d'offrir un service à la collectivité et de permettre aux étudiants en sciences infirmières de s'initier au travail dans le contexte des soins primaires. Ce programme étant offert depuis plusieurs années, une étude a été conçue pour évaluer l'efficacité de la consultation en fonction de l'effet que les interventions ont sur le mode de vie des participants, et pour déterminer si ceux-ci jugent cette expérience utile ou non. Cinquante-six clients sélectionnés de façon aléatoire ont donc fait l'objet d'une réévaluation lors d'une seconde visite. On a ensuite procédé à une comparaison entre les résultats de la première et de la seconde visite en mettant l'accent sur les risques identifiés et les modifications consécutives du comportement. La population étudiée étant en assez bonne santé, l'état de santé et les risques n'étaient guère différents d'une visite à l'autre. Toutefois, on a remarqué un accroissement statistiquement significatif de la teneur en hémoglobine lors de la seconde visite. De nombreux clients avaient gagné du poids, mais ce gain de poids n'était pas statistiquement significatif. Les problèmes des clients sont examinés sous trois rapports: types de problèmes, différences entre les problèmes propres aux femmes et aux hommes, et degré de résolution ou de soulagement dans chaque catégorie de problème.