Skin Diseases: Prevalence and Impact in the Quality of Life of the Community Members in a Rural VDC

Final Report

PI
Prof. Dr. D P Shrestha
Dept. of Dermatology
Maharajgunj Campus, IOM

Advisor
Dr. Mahesh K. Maskey
Executive Chairman
NHRC

Acknowledgement

I am grateful to Nepal Health Research Council for awarding me the research grant and providing me the opportunity to conduct this research.. I sincerely thank Dr Mahesh K Maskey , chairman of NHRC, for his valuable advice, guidance and encouragement My special thanks goes to Dr Dipendra Gurung, research assistant, for his help, interest and dedication and field assistants Urmila Balami & Roshna Balami for their hardwork and dynamism. I also thank Dr Govinda Pokhrel, Dr Manish Pradhan,Dr Fathima Masooma, Dr Mohamed Hickal, Dr Iswor Murthi, & Dr Sudip parajuli for their participation & contribution in the health camps.

Contents **page**

Summary

Skin diseases are the most common health problems, for which community members seek health care in Nepal. Skin diseases are responsible for severe disabilities and are among the major cause of social stigmatization. There is significant impact of skin diseases in the quality of life of the community members. Most skin diseases are preventable and treatable.

This is a community based cross sectional descriptive study. First a baseline household survey was done in Talku dudhechaur VDC. Then 4 health camps were conducted in the same VDC, during which skin diseases were diagnosed. The patients diagnosed with chronic and/or severe skin diseases were interviewed with DLQI questionnaire with additional questions.

The overall prevalence was 20.1%, with a slightly higher prevalence in females (22.5%) than males (18%). The prevalence of skin diseases in children was 28.1%.

The DLQI score ranged from 7 to 19 with a mean score of 10.7±3.2. Among all skin diseases ,five group of disorders – eczemas, pigmentary disorders, acne, urticaria & pruritus – were the skin problems with highest prevalence and highest impact on the quality of life of the community members.The 10 most common skin diseases seen were eczemas, pigmentary disorders, p.alba, acne, urticaria, moles & lumps, pruritus, viral infections, pyodermas & fungal infections.

Skin diseases were very common in Talku dudhechaur VDC. The prevalence was highest in children. Skin diseases had very significant impact in the quality of life of the community members.Five group of disorders – eczemas, pigmentary disorders, acne, urticaria & pruritus – were the skin problems with highest prevalence and highest impact in the quality of life of the community members. These constituted 77.6% of all skin diseases seen in the community.

Common skin problems are easily preventable and treatable at the community and primary health care level.A coordinated and timely intervention towards prevention and management of skin diaseases is essential for overall health development of the Nepalese population.

Introduction

Skin diseases are the most common health problems, for which community members seek health care in Nepal. According to annual reports of the Dept. of Health , Nepal(tab.1) skin diseases are the leading cause of morbidity in Nepal. In the year 2063/64 they constituted 4.6% of all the OPD diseases in Nepal. Skin diseases are responsible for severe disabilities and are among the major cause of social stigmatization. Skin manifestations are the most common and primary manifestations in HIV/AIDS. Regardless of the high burden to the community health, skin problems have been neglected from the part of health policy makers until now and there are no research and neither planned strategy towards the prevention and management of skin diseases at the community level.

Percentage of OPD morbidity due to skin diseases	Fiscal year
5.7	2059/60
6.1	2060/61
5.7	2061/62
5.4	2062/63
4.6	2063/64

Tab. 1 – Morbidity due to skin diseases, Annual Health Reports, 2059 - 2064, Dept. of Health

Skin problems are responsible for significant morbidity and reduces greatly the quality of life. There is a saying " Skin diseases do not take life, they simply ruin it." Infective skin diseases such as bacterial & fungal infections and infestations like scabies are still the most common skin problems. They are followed by eczemas and the combination of eczema and infection known as infected eczema is one of the most common skin problem in the rural Nepal. Chronic and debilitating diseases e.s., psoriasis, xeroderma pigmentosum, atopic dermatitis , neurofibromatosis are difficult to manage and handicapping to the patient. Leprosy is one of the most severe skin disease with social stigmatization and serious disabilities. Then there are moles, birthmarks which although asymptomatic are unesthetic with severe psycho-social consequences. Neoplastic skin disorders are diagnosed more frequently everyday. Acute drug reactions such as Stevens Johnson Syndrome (SJS) & Toxic epidermal necrolysis (TEN) are life threatening and responsible for mortality in the dermatology department.. Many systemic diseases have skin manifestations and the early recognition of which will help in the early management of the disease.

The overall prevalence of skin diseases is probably more than 30 percent in the rural communities. This figure may be higher in developing countries and even more in hot and humid tropical regions. Among all age groups, skin problems are most common in children.

.

Statement of the problem

Skin diseases are the leading cause of morbidity in Nepal for which the community members seek health care . They have significant impact in the quality of life of the rural community members and the overall morbidity due to skin diseases is very high.. From the global perspective ,at least more than a third of community members have one or more skin problems. There are no large scale studies but the prevalence may be much higher in Nepal. Many skin diseases are contagious, and the prevalence is higher in hot and humid climates with overcrowding and poor hygiene..

Skin diseases are responsible for severe disabilities. Skin problems being visible, they are a source of curiosity and comments from community members. Visible skin problems which are difficult to treat such as vitiligo, moles, birthmarks affect the normal appearance, which hinders normal professional and social life, with consequent psychological problems. The impact of these problems in the quality of life is equivalent to that due to diseases like diabetes, hypertension, asthma etc. Due to skin diseases such as chronic hand and foot eczema community members are unable to work and perform daily activities.

Skin diseases are the primary cause of social stigmatization. Apart from leprosy chronic skin diseases such as psoriasis, xeroderma pigmentosum, neurofibromatosis are a source of social stigmatization from community members and sometimes family members also. There is widespread belief that these problems are contagious and related to impurities in the blood. This leads to social isolation of individuals with these problems.

Skin cancer is one of the most common cancer. In particular squamous cell carcinoma of the lip due to chewing tobacco is common in Nepal. Most skin cancers are preventable and treatable.

Although the direct mortality due to skin diseases is not high, skin diseases are also responsible for death. Severe drug reactions are frequent cause of death. Other types of allergies may also be responsible for mortality. Pyodermas and erythrodermas may be responsible for secondary septicemia, with consequent death.

Skin diseases are the most common and primary manifestations in HIV/AIDS. They can indicate the presence of HIV/AIDS or can be AIDS defining manifestation.. As the HIV/AIDS patients are increasing day by day , skin problems will constitute an important part in the management in HIV/AIDS.

Although the leading cause of morbidity in Nepal, skin diseases have been neglected until now from the part of policy makers. The two reasons for this may be that the direct

mortality due to skin diaseases is not high and there is lack of advocacy regarding the importance of skin diseases in the health of the community members.

Apart from the records of Dept. of Health, there is lack of information regarding skin diseases and their role in the health scenario of Nepal. There are no large scale epidemiological studies done in Nepal regarding skin diseases.There are no studies done in Nepal to determine the burden of skin diseases. Hence a study which determines the prevalence and the impact in the quality of life of the community members is necessary to have the evidence based idea regarding the burden of skin diseases to the community, particularly the rural community.

There is no well planned strategy towards prevention and management of skin diseases in Nepal.

Literature review

Regardless of the fact that skin diseases are very common and responsible for high morbidity, there seems to be few studies done in the South Asian Sub-continent. There is no study done in the rural hilly community in Nepal to determine the prevalence. In a study done by Walker et al in the Terai region of Nepal [3], the point prevalence of skin diseases was 62.2% and dermatophytes, P. versicolor, acne, melasma, eczema & p alba were the most common skin problems. In another study done in school children in Northern India by Dogra S & Kumar B, the point prevalence of skin diseases in school children was 38.8% with skin infections, p.alba, eczemas & infestations being the most common presentations [4]. In a survey of 444 village children under 5 years in Pakistan, 36% had some type of skin problem [14]. In a primary health care centre in India (1989) 24 percent of the visits were due to skin diseases [2]. The most common skin diseases in India were scabies, pyodermas, superficial mycoses, dermatitis, viral disorders and miliaria rubra..

In another study from Hongkong by Fung & Lo, the prevalence of skin diseases among school children and adolescents was 31.3% [5]. A community based survey in Sumatra, Indonesia showed a 28 percent prevalence of skin diseases. [12..]

Different studies from Africa (Henderson 1996, Gibbs 1996, Figueroa et al 1996) report the high prevalence of skin diseases in the region. In a study from Mali [16], 34 percent of the children had skin diseases. In Mali the most common skin diseases were dermatitis, scabies, superficial mycoses , pyodermas and prurigo [2]. In school children of Western Ethiopia, between 47 and 53 percent of members of two rural communities claimed to have a skin disease [11], and the four conditions most common were scabies, pediculosis, tinea capitis and pyodermas. In a survey of two villages in Tanzania [10] , 27 percent of the community members had a treatable skin disease and infection were the

most common. In a large scale survey of schools of 4 villages in Kenya involving the age group 3-17yrs, the overall prevalence of skin diseases was 32 percent [15].

.

Skin problems are also common in the West. In a study from UK by Rea et al [7] in 1975 , overall proportion of the population found to have any form of skin disease was 55%, while those with skin disease worthy of medical care was 22.5%. In another study by Williams HC 12.5 people/1000 population are referred to a hospital dermatology department annually [8]. According to US Health and Nutrition Examination Survey (HANES-1) conducted in 1971-74, nearly one third had one or more significant skin condition.

The WHO 2001 report on the global burden of diseases indicated that in the Sub Saharan Africa, skin diseases were associated with mortality rates comparable to meningitis, hepatitis B, obstructed labour, and rheumatic heart disease. In the same report WHO recorded an estimated total of DALY similar to that attributed to gout, endocrine disease, panic disorder and war related injuries.

Although leprosy is an important skin disease, it would not be included in this study as there are already effective programmes for the management of this disease.

Rationale/Justification

Skin diseases are the commonest health problems in Nepal, with high morbidity , reducing significantly the quality of life of the Nepalese populations, particularly in rural areas. Common skin problems are easily preventable and treatable.A coordinated and timely intervention towards prevention and management of skin diaseases is essential for overall health development of the Nepalese population.

No epidemiological study and assessment of the burden of skin diseases has been done. This study will provide the data regarding the prevalence and burden on the health of the community members. The common and commonest skin problems with significant impact on the quality of life of community members will be identified. The results of the study will be helpful to plan and programme interventions at the community level, towards reduction of impact of skin diseases.in the rural communities.

Objectives

General

- To determine the prevalence and impact of skin diseases in the quality of life of the community members in a rural VDC

Specific

- To determine the prevalence of skin diseases in a rural VDC
- To determine the impact of skin diseases in the quality of life of community members
- To identify skin diseases which are most common and have highest impact on the quality of life of community members
- To determine the pattern of skin diseases
- To identify local causes and remedies of skin diseases

Research questions:

- What is the prevalence of skin diseases in Talku Dudhechaur VDC?
- What is the impact of skin diseases in the quality of life of community members of this VDC?
- Which are the skin diseases with highest prevalence and impact in the quality of life of community members?
- What is the pattern of skin diseases in the VDC?
- Are there local causes and remedies of skin diseases?

Research design and methodology:

Research method – quantitative

Study variables - common skin diseases, prevalence, impact, quality of life, community members

Type of study - cross sectional descriptive

Study site and justification -

The study site was Talku – Dudhechaur VDC. It is a rural VDC of Kathmandu district located 25kms South of Kathmandu city on the border with Makawanpur district. This VDC has all the characteristics of a rural Nepalese village. Thus has all the necessary features to study the prevalence and impact of skin diseases in a rural community. It is accessible , hence feasible for a small pilot study.

Target population –

The study population were the community members of Talku – Dudhechaur VDC, present at the time of the study.

Sampling method –

For household survey: probability sampling – simple random sampling
For impact on quality of life study: purposive sampling

Sample size

- for the survey : more than 50% of the residents present at the time of study
- for impact study : more than 10% of residents with dermatological problems

Techniques for data collection

Household survey for baseline survey
Healthcamps for the diagnosis of skin diseases
Interviews for impact assessment

Tools for data collection

household survey register for the survey
patient record form for health camps
Dermatology Life Quality Index Form (DLQI) and additional questions for interviews

Period of study

6 months – March 2009 to September 2009

Recruitment of research assistant (RA) & field assistants(CMA)

In the month of March 2009, Dr Dipendra Gurung (dermatologist) was recruited as the research assistant (RA). A thorough orientation regarding all aspects of the study was given. The present scenario regarding skin diseases in Nepal was explained, with particular emphasis on high prevalence, high impact in the quality of life and lack of planned and coordinated management of skin diseases.A very detailed explanation regarding the methodology and workplan of the study was done.

Successively 2 field assistants, Miss Urmila Balami (CMA) & Miss Roshna Balami (ANM) were recruited as field assistants. A one day training was organized during which, they were explained about the baseline survey. They were given a dermatology screening questionnaire (attached in the annexes) which contained 10 most common skin diseases. They were trained on how to ask questions to the community members & to record the datas on a register.

Baseline household survey

A baseline survey was done in all the wards of the VDC in study by the field assistants in the last week of March and first week of April. The field assistants went to all the households and talked in informal way and explained to them about the study. They talked with the community members about their health problems and in particular skin problems. They asked if they had any skin problems, using the dermatology screening questionnaire. During the baseline survey the household no., name of the household chief, major profession of the family, no of family members- male, female & children, no of family members with health problems , no of family members with skin problems & type of skin problems were recorded. After the conversation, the household members were informed about the place and date of the free skin health camps.The monitoring of the baseline survey was done by the PI & RA.

Health camps

Altogether 4 healthcamps were organized in the VDC in study. The healthcamps were conducted in different wards of the VDC, with the aim to reach as many patients possible.

The first health camp was conducted at KaliDevi Ma Vi, ward no 9 ,on 11th April 2009 (29th Chaitra 2065). This location was chosen to see mainly patients from wards 8 & 9. The second camp was conducted at Setidevi Ma Vi, ward no 6, on 2nd May 2009 (19th Baisakh 2066). This location covered patients from wards 5,6 & 3.The third camp was conducted at Community house, ward 4, on 16th May 2009 (2nd Jesth 2066). This location was convenient for community members from wards 4 &7. The fourth & last camp was conducted at Shree Indrayani Prathamik Vidyalaya, ward 2, on 30th May 2009 (16th Jesth 2066). This location was near for community members of 1 & 2 wards.

The camp team consisted of the PI, RA, dermatologists, field assistants, AHW of the sub-healthpost of Talku-Dudhechaur VDC, AHW of the local pharmacy & community volunteers.

Following activities were conducted during health camps:

- Free dermatological consultation
- Free distribution of dermatological medications
- Filling of patient record proforma
- Interviews using DLQI and additional questions.
- Interaction with the community members regarding the prevention of skin diseases

Pre-testing the DLQI questionnaire

The DLQI questionnaire with additional questions was tested in the first health camp, with main focus on how we could make the community members understand the questions.

Supervision and monitoring

The supervision and monitoring was done by NHRC research officers.

Data management and analysis

All datas were entered and analysed using SPSS windows programme.

Ethical consideration:

A verbal consent was taken for the interviews. Residents with skin problems were provided free dermatological consultation and free medicines.

Results

Baseline survey

The total residents of Talku dudhechaur VDC at the time of baseline survey was 3207, among which males were 1728, females 1479 & children 838. The total no of households were 477. When asked if any of them has any skin problem/s 411 said yes.

From the baseline survey, the prevalence of skin diseases among community members was 12.8%.

Health camps

Altogether 735 patients were examined in the health camps, among which 645 had skin diseases.

Among 645 patients, 312 were males, 333 were females and 236 children. The youngest patient was of 0.5yrs and the oldest 90 yrs with mean of 24.9± 18.4 yrs. Skin diseases were most common in children, up to 14yrs (36.6%), followed by youths, 15 - 24yrs (24.8%), & young-adults, 25 - 34yrs, (14.4%).

Most patients were students (51.6%), followed by housewife-farmers (29.5%) and farmers (11.3%). The majority of the patients were from ward no 6 (19.8%), followed by ward no 5 (16.9%) & least no of patients came from ward no 1 (4.7%).

Age	NO. of diseased Patient	Percentage of total population	Percentage Of Diseased population
<1	3	0.09%	0.47%
1-4	20	0.62%	3.10%
5-14	213	6.64%	33.02%
15-24	160	4.99%	24.81%
25-34	93	2.90%	14.42%
35-44	51	1.59%	7.91%
45-54	43	1.34%	6.67%
55-64	32	1.00%	4.96%
65-74	15	0.47%	2.33%
75+	15	0.47%	2.33%
Total	645	20.11%	100%

Tab.2 – Age distribution of the community members with skin problems

Profession	No. of	percentage

	patients	
Farmer Housewife	188	29.47
farmer	72	11.28
Student	329	51.57%
Teacher	8	1.25%
Mason	3	0.47%
Carpenter	2	0.31%
Other profession	36	5.64%
Total	638	100.00%

Tab.3 -Profession of the community members with skin problems

Prevalence

The overrall prevalence of skin diseases in the community members of Talku dudhechaur VDC was 20.1%.

The prevalence in males was 18.1%.

The prevalence in females was 22.5%.

The prevalence in children was 28.2%.

The highest prevalence of skin diseases was seen in ward no 4 (38.8%) followed by wards 2 (28.1%), 3(26.2%) & 6(25%), while the lowest prevalence was seen in ward 1(8.5%).

ward no	Total No. of patient	Prevalance
1	30	8.47%
2	56	28.14%
3	87	26.20%
4	71	38.80%
5	110	20.33%
6	128	25.00%
7	77	21.94%
8	38	9.60%
9	48	14.16%
Total	645	20.11%

Tab.4 –Prevalence of skin diseases in individual wards

DLQI interviews

A total of 95 patients were interviewed with DLQI questionnaire with additional questions. Questonnaires with more than 1 question unanswered were not considered for evaluation. Hence the total no of questionnaires valid for evaluation were 75.

The DLQI score ranged from 7 to 19 with a mean score of 10.7 ±3.2. A score more than 10 signifies that skin diseases have very large effect on patient,s life.

DLQI score	interpretation
0 – 1	No effect at all on patient,s life
2 – 5	Small effect on patient,s life
6 – 10	Moderate effect on patient,s life
11–20	Very large effect on patient,s life
21-30	Extremely large effect on patient,s life

Tab. 5 – Meaning of DLQI scores

The highest score was obtained by the question on symptoms (mean score-2), followed by the question on feelings (mean score-1.7). Questions regarding the influence on wearing cloathes (mean score-0.4) and practicing sport (mean score-0.5) scored least. Question 9 on sexual activity was not asked, thinking that the community members, mainly the females may not be comfortable with this question.

Questions	score	Mean score
1 – symptoms	136	2
2- feelings	117	1.7
3- daily activities	89	1.3
4-wearing cloathes	28	0.4
5- social & leisure	98	1.5
6- sport	33	0.5
7- work & school	111	1.7
8 – personal relationship	66	1
9 – sexual activity	0	0
10 - treatment	39	0.6

Tab.6 – Individual question score in DLQI questionnaire

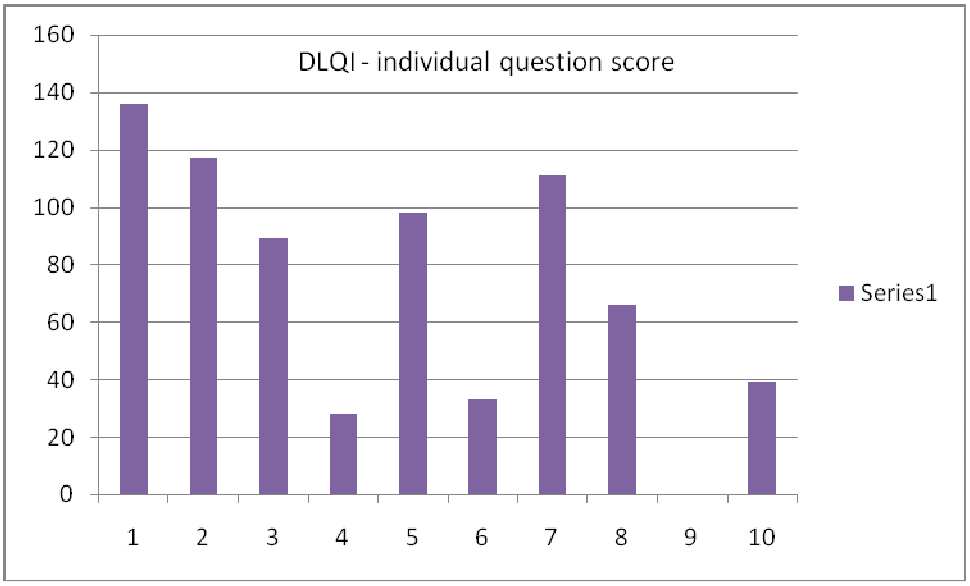

Fig.1 – DLQI – individual question score

Among individual skin diseases the highest DLQI score of 19 was seen in a patient with rhinophyma, followed by a community member suffering from post-herpetic neuralgia with a score of 17.

s.no	Skin disease	No of DLQIs	Mean score
1	eczemas	30	11.1
2	Pigmentary disorders	18	10.3
3	acne	12	9.9
4	urticaria	10	12.2
6	pruritus	5	9.8
7	Viral infections	1	7
8	psoriasis	3	10
9	Fungal infections	1	7
10	Rosacea-rhinophyma	2	17
11	Post-herpetic neuralgia	1	17

Tab.7.- DLQI score according to group of skin diseases

Skin diseases with highest prevalence and impact

Regarding skin diseases with highest prevalence and impact, five group of disorders – eczemas, pigmentary disorders, acne, urticaria & pruritus – were the most common and with large impact on the quality of life of the community members. These constitute 77.6% of all skin diseases seen in the community

s.no	Skin disease	prevalence	Mean DLQI score
1	eczemas	12.5	11.1
2	Pigmentary disorders	4.1	10.3
3	acne	2.7	9.9
4	urticaria	2.3	12.2
5	pruritus	1.5	9.8

Tab. 8 – Skin diseases with highest prevalence and impact

Additional questions

Regarding the additional questions almost none of the patients feared that the skin disease was leprosy (question 3, mean score - 0.2). But they were worried due to the skin problem (question 7, mean score – 1.7) and many thought that the skin diseases were due to blood impurities (question 5, mean score – 1.6).

Pattern of skin diseases

Altogether 58 types of skin diseases were diagnosed. Among 645 patients dignosed with skin diseases 242 had 2 skin diseases and 73 had 3 skin diseases. Hence a total of 960 skin diseases were diagnosed.

The 10 most common skin diseases seen were eczemas, pigmentary disorders, p alba, acne, urticaria, moles & lumps, pruritus, viral infections, pyodermas & fungal infections . The most common were eczemas (28.1%) with a prevalence of 8.4% , followed by pigmentary disorders (13.9%) with a prevalence of 4.1%, p alba (13.6%) with a prevalence of 4% and acne (8.9%) with a prevalence of 2.7%.

s.no.	Skin disease	No. of patients	percentage	prevalence
1	Eczemas	270	28.1	8.4
2	Pigmentary disorders	133	13.9	4.1
3	p.alba	131	13.6	4
4	Acne	85	8.9	2.7
5	Urticaria	79	8.2	2.3
6	Moles & lumps	52	5.4	1.6
7	Pruritus	47	4.9	1.5
8	Viral infections	45	4.7	1.4
9	Pyodermas	35	3.7	1.1
10	Fungal infections	30	3.1	0.9
	others	53	5.5	1.7

Tab.9– Pattern of skin diseases in Talku-dudhechaur VDC

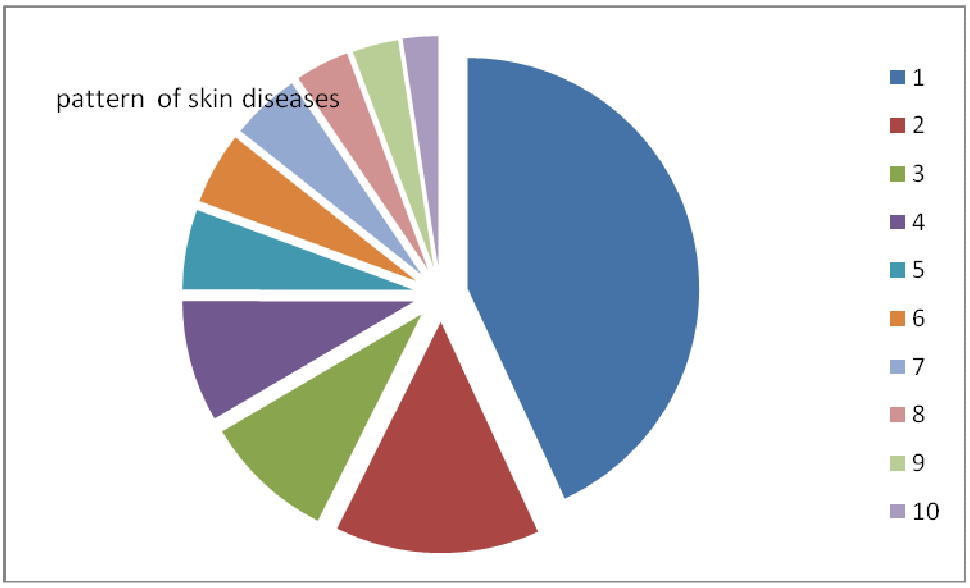

Fig.2 – pattern of skin diseases in Talku-dudhechaur VDC

Discussion

Skin diseases are the most common health problems, for which community members seek health care in Nepal. According to annual reports of the Dept. of Health [1], Nepal, skin diseases are the leading cause of morbidity in Nepal. In the year 2063/64 they constituted 4.6% of all the OPD diseases in Nepal[1]. Skin diseases are responsible for severe disabilities and are among the major cause of social stigmatization.

The overall prevalence of skin diseases is probably more than 30 percent in the rural communities. This figure may be higher in developing countries and even more in hot and humid tropical regions. In Sumatra, Indonesia 28 percent of the community members surveyed had a skin disease [12]. In the study done by Walker et al [2]in the Terai region of Nepal the point prevalence was very high (62%), but the study indicates the health camp prevalence of skin diseases rather than the community prevalence.
Different studies from Africa [9,10,11.], report the high prevalence of skin diseases in the region. In Tanzania 27% of the community members had a treatable skin disease [9]. Skin diseases are equally common in the West affecting 1 out of 5 persons in UK[7] and 1 of 3 in USA [6].

In our study the overall prevalence was 20.1%, with a slightly higher prevalence in females (22.5%) than males (18%). This is a very high prevalence affecting 1 out of 5 community members. The prevalence in our study was less than other studies, most probably due to the fact that our study in the community was of short duration (4 health camps in 2 months), hence all those with skin problems could not present to the health camps. The other reason may be that the period of our study (April – May) is not a very hot and humid season as skin diseases are most common during hot and humid summer months. The third reason may be that community members still tend to neglect skin problems. **Hence we think that the actual prevalence of skin diseases is higher than seen in our study.**

Among all age groups, skin problems are most common in children. **In our study the prevalence of skin diseases in children was 28.1%, which is significantly higher than the general population.** The prevalence ranged from 32% in Kenya[15] to 34% in Mali [16], and 31.1% in Hongkong [5] to 38.8% in Northen India [4]. The prevalence in our study is a little low in comparison to other studies, may be due to the reasons already stated above.

Skin problems are responsible for significant morbidity and reduces greatly the quality of life .Skin diseases are responsible for severe disabilities. Skin problems being visible, they are a source of curiosity and comments from community members. Visible

skin problems which are difficult to treat such as vitiligo, moles, birthmarks affect the normal appearance, which hinders normal professional and social life, with consequent psychological problems. The impact of these problems on the quality of life is equivalent to that due to diseases like diabetes, hypertension, asthma etc. Due to skin diseases such as chronic hand and foot eczema community members are unable to work and perform daily activities.

Skin diseases are the primary cause of social stigmatization from community members and sometimes family members also. There is widespread belief that these problems are contagious and related to impurities in the blood. This leads to social isolation of individuals with these problems.

In our study skin diseases had significant impact and reduced the quality of life of the community members. The DLQI score ranged from 7 to 19 with a mean score of 10.7 ± 3.2. This score means that skin diseases have very large effect on patient's life. The community members were troubled most by the symptoms such as itchyness, soreness, pain, stinging etc. They were equally affected by feeling of self consciousness and embarrassement Hence the highest score was obtained by the question on symptoms (mean score-2), followed by the question on feelings (mean score-1.7). Some questions e.s., that on cloathes (question 4) and on sport (question 6) were not relevant in the context of rural Nepal, while, question 9 on sexual activity was not comfortable to ask..

Among all skin diseases ,five group of disorders – eczemas, pigmentary disorders, acne, urticaria & pruritus – were the skin problems with highest prevalence and highest impact on the quality of life of the community members.

It is very important to underline that, in our study, almost **none of the patients feared that the skin disease was leprosy**. This is due to leprosy awareness campaigns. This proves how important are community awareness activities for the prevention. Most thought that the **skin diseases were due to blood impurities** and were also worried due to skin diseases.

The 10 most common skin diseases seen were eczemas, pigmentary disorders, p.alba, acne, urticaria, moles & lumps, pruritus, viral infections, pyodermas, fungal infections. The high prevalence of eczemas and p.alba is consistent with other studies. Urticaria and pruritus are important skin problems in the community from our study. The results of our study differ slightly in that in our study fungal infections, scabies and pyodermas are not the topmost skin problems. This may be due to the fact that the study period was not in the hot and humid season, and the VDC in study being near Kathmandu the hygiene level may have been better.

Conclusions

- Skin diseases were very common in Talku dudhechaur VDC. The prevalence is highest in children.
- Skin diseases had very significant impact on the quality of life of the community members.
- .Five group of disorders – eczemas, pigmentary disorders, acne, urticaria & pruritus – were the skin problems with highest prevalence and highest impact in the quality of life of the community members. These constituted 77.6% of all skin diseases seen in the community.
- The 10 most common skin diseases seen were eczemas, pigmentary disorders, p.alba, acne, urticaria, moles & lumps, pruritus, viral infections, pyodermas, fungal infections. These constituted 94.5% of all the skin diseases seen in the community.
- There were misconceptions regarding the cause of skin diseases (such as the belief that they are due to blood impurities).

Recommendations

Common skin problems are easily preventable and treatable at the community and primary health care level. A coordinated and timely intervention towards prevention and management of skin diaseases is essential for overall health development of the Nepalese population.

Annexes

1. references
2. household survey register (format)
3 dermatology screening questionnaire (DSQ)
4 patient record form
5 modified DLQI with additional questions form

References

1. Annual Report 2059 - 2064, Dept. of Health
2. Epidemiology and management of common skin diseases in children in developing countries. WHO, 2005.
3. Walker SL et al. Skin disease is common in Nepal: result of a point prevalence study. B J Dermatol 2006; 158(2): 334-338
4. Dogra S & Kumar B. Epidemiology of skin diseases in school children:A study from Northen India. Pediatric Dermatology 2003; 20(6): 470-473
5. Fung WK & Lo KK. Prevalence of skin disease among school children & adolescents in a student health service center in Hongkong. Pediatric Dermatology 2000; 17(6): 440-446
6. US Health & Nutrition Examination Survey (HANES -1), 1971-74
7. Rea JN et al.Skin disease in Lambeth: a community study of prevalence and use of medical care.Br J Prev Soc Med 1976;30:107-14
8. Williams HC. Dermatology. Health Care Needs Assessment. Second Series Oxford: Radcluffe Medical Press, 1997
9. Henderson CA. Skin disease in rural Tanzania. Int J Dermatol 1996;35:640-2
10. Gibbs S. Skin disease and socio-economic conditions in rural Africa: Tanzania. Int J Dermatol 1996;35:633-9
11. Figueroa I et al. The prevalence of skin disease among school children in rural Ethiopia – a preliminary assessment of dermatologic needs. Pediatric Dermatology 1996;13:378-81
12. Saw S M et al. A Population-Based Prevalence Survey of Skin Diseases in Adolescents and Adults in Rural Sumatra, Indonesia. Transactions of the Royal Society of Tropical Medicine and Hygiene 95: 384 - 88
13. Mathers, C. D. et al. "The Burden of Disease and Mortality by Condition: Data, Methods, and Results for 2001." In Global Burden of Disease and Risk Factors, eds. A. D. Lopez, C. D. Mathers, M. Ezzati, D. T. Jamison, and C. J. L. Murray. New York 2006: Oxford University Press.
14. Porter MJ et al. Pediatric skin disease in Pakistan. Int J Dermatol 1984;23:613-6.
15. Schmeller W, Dzikus A. Skin diseases in children in rural Kenya: long-term results of a dermatology project within the primary health care system. Br J Dermatol 2001;144:118-24.
16. Mahé A et al. Skin diseases of children in Mali: a public health problem. Trans R Soc Trop Med Hyg 1995;89:467-70.

HOUSEHOLD SURVEY REGISTER (FORMAT)

Ward no. ……..

No.	Chief of household	No of household members	occupation	M	F	children	No of household members with skin problems

DSQ – dermatological screening questionnaire

This contains name of ten skin diseases, both in Nepali and English, which are the most common skin manifestations. The RAs have to ask the community members if they have any of these skin problems and/or any other skin problems.

1. Luto- scabies
2. Dadd – eczema and/or fungal infections
3. Pakne khatira – bacterial infections
4. Chilaune – pruritus
5. Musa – warts
6. Dubi- seto-vitiligo, khairo-p.versicolor
7. Chala/dabur – urticaria
8. Kothi/dagg – moles and birthmarks
9. Masuko dallo – nodules and cysts
10. Dandifor - acne

PATIENT RECORD FORM

Patient no……..

Household…no……..

Ward no…….

Health camp no…….

Name…….

sex…… age……

Diagnosis……..

Treatment……

Chronic Y N

Severe Y N

DLQI interview Y N

Local cause……

Local remedy…….