

PROJECT B

ATTRITION OF FEMALE HEALTH WORKERS:



An insight into the reasons why Lady Health Workers resign from Pakistan's National Programme for Family Planning and Primary Health Care.

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Declaration:

“This project has been submitted in partial fulfilment of the requirements for the award of the Intercalated Degree in International Health. The examiners cannot, however, be held responsible for the views expressed, nor the factual accuracy of the contents.”

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LIST OF ABBREVIATIONS:

BHU	- Basic Health Unit
CHW	- Community Health Worker
DHO	- District Health Office
FGD	- Focus Group Discussion
LHS	- Lady Health Supervisor
LHV	- Lady Health Visitor
LHW	- Lady Health Worker
NGO	- Non-governmental Organisation
NPFPPHC	- National Programme for Family Planning and Primary Health Care
WHO	- World Health Organisation

ABSTRACT:

Introduction:

The gender norms common to South Asia restrict women's access to health services and have created a demand for female community health workers, best able to deliver appropriate health care to all family members. Yet, these gender norms also make the recruitment and retention of women into such roles a challenge.

Aim:

This qualitative research study aims to explore factors that cause Lady Health Workers to resign from Pakistan's National Programme for Family Planning and Primary Health Care. It reveals the experiences and opinions of resigned Lady Health Workers and seeks to understand how these have impacted on their decision to leave the programme.

Methodology:

Semi-structured interviews with 12 recently-resigned Lady Health Workers from Rawalpindi district form the basis of this qualitative study, in May 2008. The participants were purposefully chosen from rural and urban areas. Thematic analysis was performed; and informal interviews, a focus group discussion and observation allowed for triangulation.

Results:

Two-thirds of the women's reasons for leaving the programme related to factors within the programme's control. Most common were too much work and too little salary but poor respect from the community and health personnel also featured. Family needs or family dissatisfaction with the women working and illness formed the main reasons outside of the programme's control. Other dissatisfactions included a lack of training and space for improvement.

Conclusion:

To help overcome these issues, the programme could make polio work optional and additionally salaried, therefore adjusting workload and salary balance. It could also provide identity cards to help improve respect and interaction with other health professionals and limit the job to married women with family permission. Future research is needed to investigate why certain women find the work so demanding and others appear to find it perfectly manageable, as this is the major factor for attrition.

1 INTRODUCTION:

Pakistan is a male-dominated society where very few females have full opportunity and many are denied their rights. Its culture radically impacts upon the general health status of Pakistani women and restricts their access to health care.¹ The gender norms limit most women's mobility and interaction with male health personnel, creating a nationally recognised demand for health care that addresses female and child health needs.²

The National Programme for Family Planning and Primary Health Care (NPFPPHC) was created in 1994 to address Pakistan's inequity in health provision. Commonly referred to as the Lady Health Worker (LHW) programme, the 98,000 female community health workers (CHW) aim to "bridge the gap between the community and health facilities" and ensure the whole population has effective access to health services.³ It especially caters for women who face social or physical barriers to healthcare through using LHWs, most able to reach all family members.

However, the same environment which creates strong need for LHWs also challenges the function of the programme. LHWs must function in a patriarchal health system and often stretch strict, socio-cultural norms or disregard gendered behaviours.^{4,5} Unsurprisingly, recruitment and retention of LHWs a complicated task, essential for the sustainability and effectiveness of the programme.

This qualitative research project explores reasons why LHWs have resigned from Pakistan's NPFPPHC and identifies their problems and dissatisfactions. Previous research has examined the perspective of employed female health workers and indicated that salary is too low for the workload and a need for greater support.^{4,6} However, this study focuses on resigned LHWs as they are likely to have experienced difficulties and to be direct and honest about their frustrations. The findings are relevant to the LHW programme and shed light on problems faced by female health personnel in the gender-restrictive societies typical to South Asia.

2 BACKGROUND.

2.1 Female CHW programmes.

CHW programmes play a significant role in health provision across the world through providing promotive, preventative, curative and rehabilitative health care to under-served populations. They allow people unable to utilise local health facilities to receive basic health care at home, improve uptake of services and when compared to other methods of health organisation increase the coverage and equity of delivery.^{7,8}

Female CHW programmes are particularly important in South Asia where gender inequity is among the greatest in the world⁹. Female staff can best serve the often neglected female population who suffer health inequality due to lower social value, restrictions on health access and limits on services provided by male health personnel.¹

Local employment of women within the community also enables female empowerment and welfare gains.¹⁰ Through providing positions with community responsibility, economic independence and a reason for free mobility, such jobs facilitate social adaptation and, as noted by Sen and al, increase female leadership and advocacy capacity.^{1,11,12}

Therefore, women as healthcare providers are crucial for strengthening equitable healthcare systems, yet, the recruitment and retention of women into CHW programmes remains a common challenge within South Asia. In 2005, the WHO emphasised the need to develop “strategies to recruit, retain, and motivate health workers at the district level, including the use of financial and non-financial incentives”¹³. Literature is unclear on how incentives affect CHW retention, though financial reward and community respect have been highlighted as important.^{14,15,16} A more comprehensive understanding of why CHWs leave their programmes is needed to shape such strategies.

2.2 The National Programme for Family Planning and Primary Health Care:

Pakistan’s NPFPPHC is the world’s largest CHW programme serving 70% of the population¹⁷. The programme is successful and has many common elements with other South Asian programmes, including most of the gender constraints typical to the region.¹⁴ Pakistan has made 2008 the ‘Year of the LHW’ with the hope of increasing LHW respect, making it a fitting time and a useful programme to explore CHW attrition.¹⁸

2.2.1 Criteria and responsibilities of a Lady Health Worker:

The LHW selection criteria and duties are explained in table 1 and coordinated through their local government basic health unit (BHU). Routine work involves family planning, health education, nutrition and maternal and child care but LHWs are also required to carry-out additional national level health activities, like vaccination.^{19,20}

Table 1: Lady Health Worker selection criteria and duties.³

The selection criteria for a LHW:	The duties of a LHW:
<ul style="list-style-type: none"> - A long-term resident of and recommended by the community she will serve. - 18 years old or more. - At least 8th grade education - Preferably married - Available to complete 3 months full-time and 12 months part-time training. 	<p>To provide basic health services to her community (approx. 1000 people or 150 houses³) by:</p> <ul style="list-style-type: none"> - being attached to and liaising with the local BHU. - opening her home as a 'health-house' - visiting the homes of her community - registering pregnant women for antenatal care. - providing door-to-door polio work - promoting family planning. - submitting monthly report on her work <p>To set-up and facilitate health committees and women's groups within the community.</p>

South Asia's CHW programmes are mainly volunteer-based but Pakistan's LHWs are civil servants on an annual contract. They receive a monthly salary of Rs2990 and 15 days annual refresher training. Supervision is provided by Lady Health Supervisors (LHSs) who oversee an average of 27 LHWs in their duties.^{17,19}

2.2.2 Attrition of Lady Health Workers

The term attrition is used through-out this paper to describe the loss of LHWs from the NPFPPHC regardless of their reason for leaving the job. Recent estimates of the national annual attrition are unknown but the 2002 third external evaluation approximates 5%.²¹ This means an extra 5000 LHWs need to be trained annually, costing a relatively modest Rs4 million.^{21,22} However, this loss of LHWs not only wastes precious resources but disrupts the programme's function and destroys community and LHW relationships.

The Government's strategic plan for 2003-2008 aims to build capacity at lower government levels though trialling more sustainable structures of management to avoid such losses.²² It has also set a recruitment target for 2010 of 110,000 LHWs to cover 30% of the urban and 90% of the rural population.¹⁹ However, without understanding the key reasons for its attrition these plans may become a difficult challenge.

3 AIMS AND OBJECTIVES:

The aim of this qualitative study is to discover and explore factors that cause LHWs to resign from Pakistan's LHW Programme by gaining an insight into the experiences and opinions of resigned LHWs and understanding how these impacted on their decision to leave the NPFPPHC.

The following specific objectives were set:

1. Review data to determine attrition rates of LHWs from the NPFPPHC in Rawalpindi district and their distribution.
2. Identify and determine the nature and extent of factors that influence the LHWs decision to resign from NPFPPHC in Rawalpindi district.
3. Establish reasons why the resigned LHWs decided to join the NPFPPHC and determine their dissatisfactions with the LHW job.
4. Inform the LHW Programme of the findings in order to help enable improvements within the NPFPPHC.

It must be made clear that this study focused only on LHW attrition due to resignation - that is to say those LHWs who chose to leave.

4 METHODOLOGY:

This exploratory research had a qualitative methodology and took place in Rawalpindi district of Pakistan, during May 2008. The primary research method was semi-structured in-depth interviews which enabled a holistic understanding with both flexible and iterative investigation, essential for validity.²³ Background activities with key informants and a focus group discussion (FGD) enabled triangulation. Ethical approval, see appendix I, was granted both from the University of Leeds and locally.

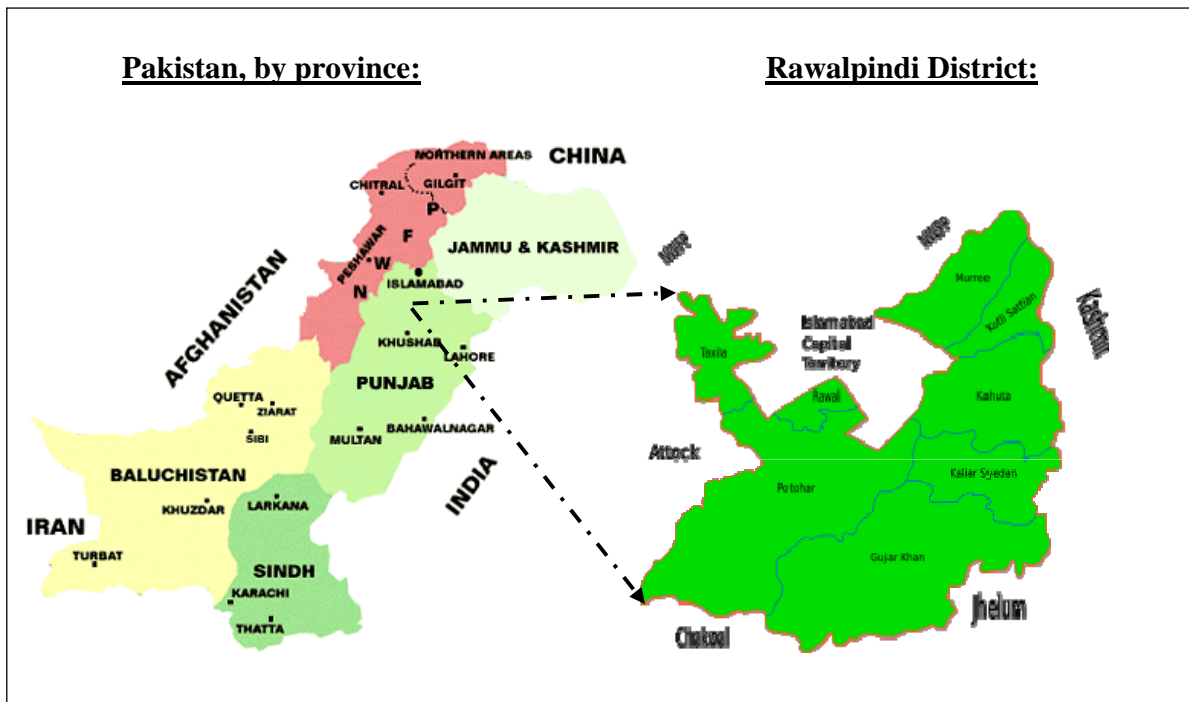
4.1 Literature review:

An extensive review of all relevant English literature on female CHWs in South Asia was conducted from October 2007 to January 2008. It involved comprehensive searches in the Medline, Global Health, and Cochrane library databases, other electronic resources, such as Population Council, related Government and NGO websites and the World Wide Web. Analysis identified attrition as a problem common to all the CHW programmes and lead to the development of this research project.

4.2 Study Location:

Rawalpindi district, figure 1, is a typical district of Punjab province and of Pakistan and so a useful site for this research.²⁴ The programme is also well established, operates on a large scale whilst being a relatively safe and logistically manageable area.

Figure 1: Maps of Pakistan and Rawalpindi district.^{25,26}



Rawalpindi district is divided into 8 Tehsils (sub-districts) and has 1698 LHWs, of which 174 work in urban areas. There are 75 LHS and 77% of the rural and 9% of the urban population are registered by LHWs.²⁷ The District Health Office (DHO) in Rawalpindi city was used as the base for this research as it coordinated the district LHWs programme.

4.3 Review of data on attrition:

All available information at Rawalpindi DHO was analysed to determine attrition rate and distribution. Sources included district monthly reviews from January 2007 until March 2008 and annual reports from 2003 until 2007. The pay roll was also inspected and the 2008 micro-plan figures examined.

4.4 Interview design and format:

Background activities, outlined in table 2, were performed to create a sound basis of knowledge and design an appropriate interview schedule, appendix II. At the same time the researcher familiarised herself with the local environment and customs so a culturally sensitive style was used to obtain complete and detailed data.

Table 2: Background activities:

Activity	Informant	Relation to programme	Location
Informal interviews	Dr. A Hafeez Dr. Dass Dr. Aqeel	National Director Monitoring and Evaluation Training Coordinator	National level
Informal interviews	Dr. Javeed Madam Farrukh Dr. Suhail Dr. Zafar	Rawalpindi District Director Assistant Director Rawalpindi Monitoring and Evaluation Public Health Specialist	Rawalpindi district.
In-depth interview (audio recorded)	Current LHW Current LHS	> 5 years experience, rural area, > 5 years experience, urban area,	Rawalpindi district
Focus Group Discussion (FGD) (audio recorded)	9 LHSs	Current rural LHSs.	Gudjakhn Tehsil, Rawalpindi district.
Review of resignation letters and complaints	7 resignation letters No documented complaints.	2 urban, 5 rural	Rawalpindi district DHO, (Jan 2007 → present day)
Observation of a LHW's daily work.	LHW	Included door-to door polio work in an urban area.	Rawalpindi district.

A 24 year old female translator was hired, orientated with the subject area and trained on interview format and styleⁱ. The interview schedule was piloted on a resigned LHW and expanded upon after the field analysis of each interview to remain responsive. Interviews were conducted in Urdu, translated verbatim and audio recorded.

Interviews took place at the participant's house where the familiarity and privacy of the location, with just the researcher, translator and participant present. Interviews lasted from 25 to 45 minutes and were transcribed verbatim within 3 days of the interview. Relevant non-verbal information from field notes was included and a research diary also used to complement the findings and detail the context.

4.5 Sample strategy and participants:

Purposive sampling was used to guarantee participants with the correct experience and demographic characteristics: to have resigned from the programme no earlier than January 2007, worked for a minimum of 2 years and from a wide range of geographical locations, with half urban and half rural.

Participants were identified from five information-gathering sessions as there were inadequate records on location, demographics and contact details of resigned LHWs at the DHO. These were held during the monthly meeting of LHSs from each Tehsil, at the DHO and included 5 Tehsils. LHSs provided contact information for any recently resigned LHWs in their area and by geographical variation alone, 15 resigned LHWs were selected with 7 from an urban area and 8 from rural locations.

Next, the resigned LHW was contacted by phone or in person and informed consent for the interview and audio recording obtained, in appendix I. Confidentiality and anonymity was maintained at all times. Due to one inaccurate contact detail and two women being unavailable a total of twelve interviews (7 rural and 5 urban) were conducted. The demographic information of the 12 participants is outlined in table 3, with the same codes used to identify participant quotes throughout the paper.

ⁱ It must be declared that the translator's mother is a resigned LHW from Rawalpindi district but was not included in this study.

Table 3: Demographic information of participants.

Interview number & area. (rural = R, urban = U)	A G E	Marital Status & (number of children.)	Highest education level	Previous paid employment outside of the home.	New paid employment outside of the home.	Number of years as a LHW:
1U	45	Married, (4)	8 th grade	School teacher	None, needed for housework	11
2U	38	Married, (4)	8 th grade	Laboratory assistant	None,	9
3R	23	Single, (0)	10 th grade	School teacher	None,	5
4R	21	Single, (0)	10 th grade	Private clinic	None,	2¼
5R	33	Single, (0)	10 th grade	Evenings in private clinic whilst an LHW.	Full-time job at same private clinic.	11
6R	42	Widowed (2)	8 th grade	None	None	11
7U	42	Married (2 nd husband, 1 st died) (5)	10 th grade	Private clinic	Runs a small private clinic at her home	11
8R	27	Single, (0)	10 th grade	Embroidery teacher for a women's social group.	None	5
9R	48	Widowed, (3)	8 th grade	None	None	11
10R	38	Married, (6)	12 th grade	Private tuition	None	11
11U, (no permission for audio tape, written notes only)	25	Married, (0)	14 th grade (BA)	School teacher	None	4
12U, (Interview in English but translator still present)	23	Single, (0)	14 th grade (BA) and computer training)	School teacher	Hospital nursing assistant.	3

4.6 Analysis:

Analysis began in the field with immediate review of each interview, writing supplementary field notes including appreciation of the translator's opinions. After transcription, thematic analysis was used to generate categories in an inductive way with the interview questions removed. This avoided the pre-categorisation of the data and enabled information to be considered on its own basis rather than connected to prejudgments.²⁸

First, field notes and transcripts were re-read to gain a broad overview of recurring themes and how they related to objectives.²⁹ Next, the text was annotated by codes relating to

broad themes emerging from the data with, as far as possible, all previous knowledge and presuppositions put aside³⁰. Constant comparison checked the texts against existing codes and helped development of subcategories. Once logically categorised, the data was grouped, condensed and summarised to represent the data more concisely.

An audit trail was used to make all interpretation explicit, provide clarity on data positioning and consistency.³¹ New themes were still emerging from the last few interviews so the data collection was not saturated, however, time constraints prevented further interviews being conducted.

Data was interpreted by reflecting on the findings, recognising commonalities and deviants and identifying any associations or links. At this stage, findings were comparatively crosschecked with data from the background activities to bring together multiple perspectives and collection methods in order to reveal commonalities and contradictions and strengthen the validity of the findings³¹.

A formal presentation of the study's initial findings was given to the NPFPPHC, and colleagues on 27th May 2008. Electronic and paper copies of the written report will be supplied to the national programme and regional contacts to provide more detailed analysis and the original data.

5 FINDINGS

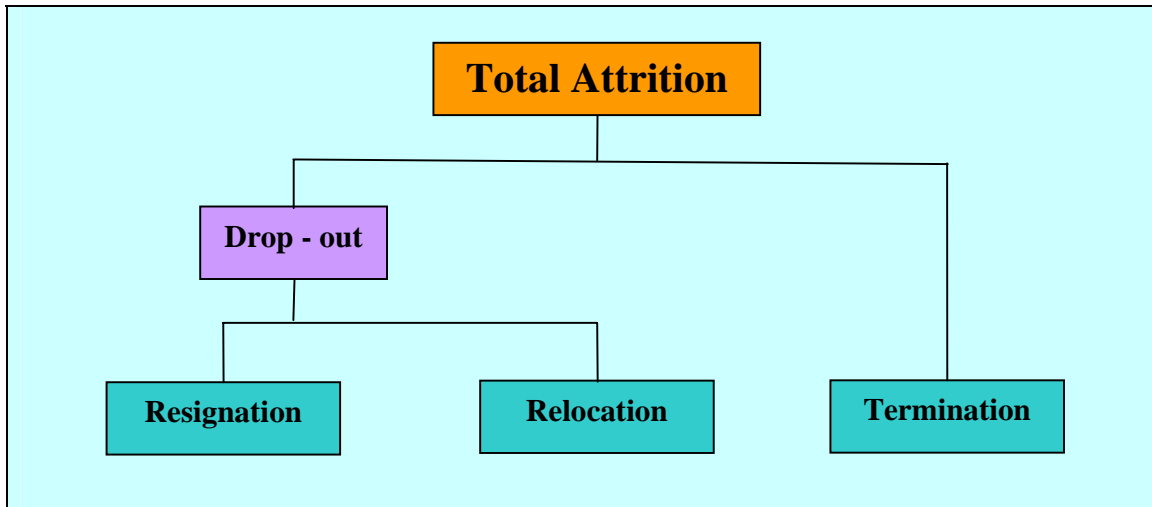
The findings of this research have been divided into four sections which correspond with themes identified during analysis and the study's objectives; 1) Definitions and analysis of data on LHW attrition; 2) Reasons why LHWs chose to resign; 3) Reasons why the LHWs joined the LHW programme; 4) Other dissatisfactions with the LHW programme. An integrated approach is used through-out combining the findings, discussion and suggestions whilst also incorporating information from the background activities.

5.1 Definitions and analysis of data on Lady Health Worker attrition:

The definitions outlined in table 4 were created after reviewing Rawalpindi's records and data. They describe the different forms of attrition and help ensure that the study focused on LHWs who had chosen to resign.

Table 4: Definitions of attrition and its subdivisions.

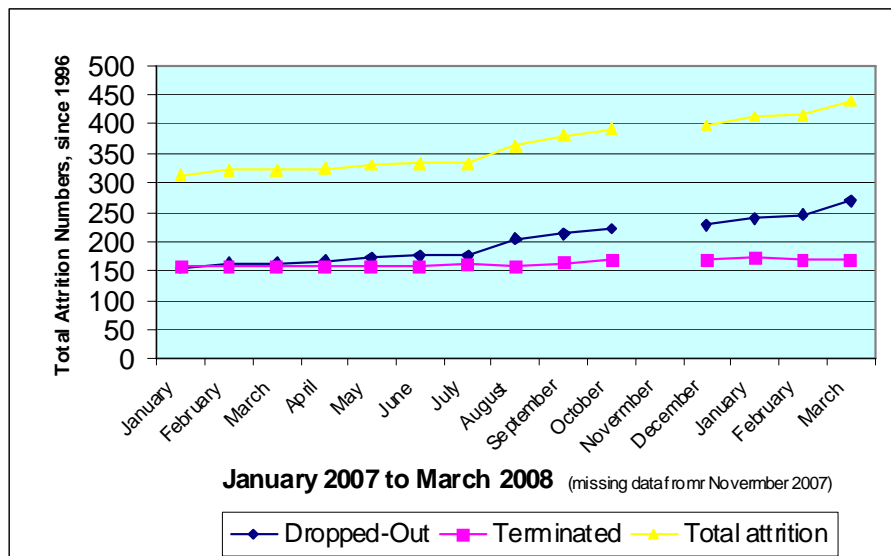
Term	Definition
Total attrition	<p>By number: The total number of fully trained LHWs who left the LHW programme in a stated unit of time.</p> <p>By rate: The total number of fully trained LHWs who left the LHW programme in a stated unit of time, as a percentage of the averaged number of fully trained LHWs working for the programme, during the time period.</p>
Drop – out	A term used in Rawalpindi's DHO records to refer to all the LHWs who have left the LHW programme due to relocation or resignation in a stated unit of time.
Resignation	<p>The number of fully trained LHWs that <i>choose</i> to leave the LHW programme for personal or family reasons, in a stated unit of time. This is normally due to a combination of 'push' and 'pull' factors and is initiated by the LHW.</p> <ul style="list-style-type: none"> - pull factors: factors that take the LHW away from the programme, <i>E.g. Illness or family needs.</i> - push factors: dissatisfactions that cause the LHW to leave the programme. <i>E.g. Too much hard work or not enough pay.</i>
Relocation	The number of fully trained LHWs that move away from their area to live outside of their original community so they are no longer permitted to continue their work, in a stated unit of time. This is usually due to marriage.
Termination	The number of fully trained LHWs who are asked to stop work due to poor performance, in a stated unit of time. This is initiated by the LHW programme.



Rawalpindi DHO has no estimates for LHW attrition and provincial figures could not be located. There was limited information, records were of poor accuracy and questionable reliability whilst no data was available prior to 2003, (see appendix III for supporting data). There were no letters of complaints in 2007 and only 7 letters of resignation which gave few details about the LHWs or their reasons for leaving, appendix IV. Therefore, the knowledge gained was less than that required, the short time frame minimises the use of identifiable trends and the first research objective was not met.

The DHO records from 2007 until March 2008 showed total attrition, as absolute figures since 1996, by month sub-divided into drop-out and termination, figure 2.

Figure 2: Total attrition by number in Rawalpindi district (since 1996) from January 2007 to March 2008, by month.

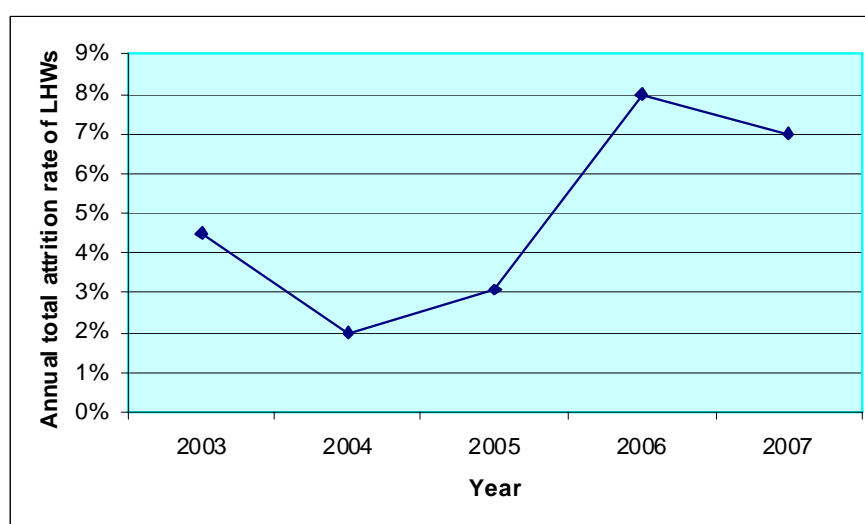


A greater number of LHWs drop-out from the programme than are terminated and it

appears that attrition from drop-outs is also increasing at a faster rate. The sharp and unexplained increase in July 2007 may be usual but, with no earlier data, fluctuation trends can not be assessed. Examination of the distribution of the LHWs who dropped-out was not possible and again trends in geographical location, age, marital status and length of work could not be identified. Similarly, there was no information on what proportion of drop-outs were from resignation or relocation. With these details missing, a comprehensive understanding of LHW attrition could not be gained.

Annual records from 2003 onwards showed a general increase in the annual total attrition rate but the type of attrition was not documented, figure 3. The averaged annual total attrition for these five years was found to be 4.9%, in line with the 5% quoted in the third external evaluation in 2002²¹.

Figure 3: Annual total attrition rate of LHWs in Rawalpindi district, from 2003-2007.



The sharp fluctuations and relatively short time frame make this trend an unreliable indicator, nevertheless, the growth in attrition is supported by the DHO monthly data described earlier. Calculation from January 2007 to March 2008 showed a 7.7% increase in the attrition number, of which 6.8% was due to drop-outs, yet the number of LHWs only rose by 2.2%, table 5. This suggests a growing recruitment and retention challenge.

Table 5: LHW attrition (January 2007 - March 2008, Rawalpindi district.)

	January 2007	March 2008	Change in LHWs	Change (%)
Total LHWs	1661	1698	37 more	+2.2%
Drop-out	155	269	114 fewer	-6.8%
Termination	158	170	12 fewer	-0.7%
Total attrition	313	439	126 fewer	7.5% attrition

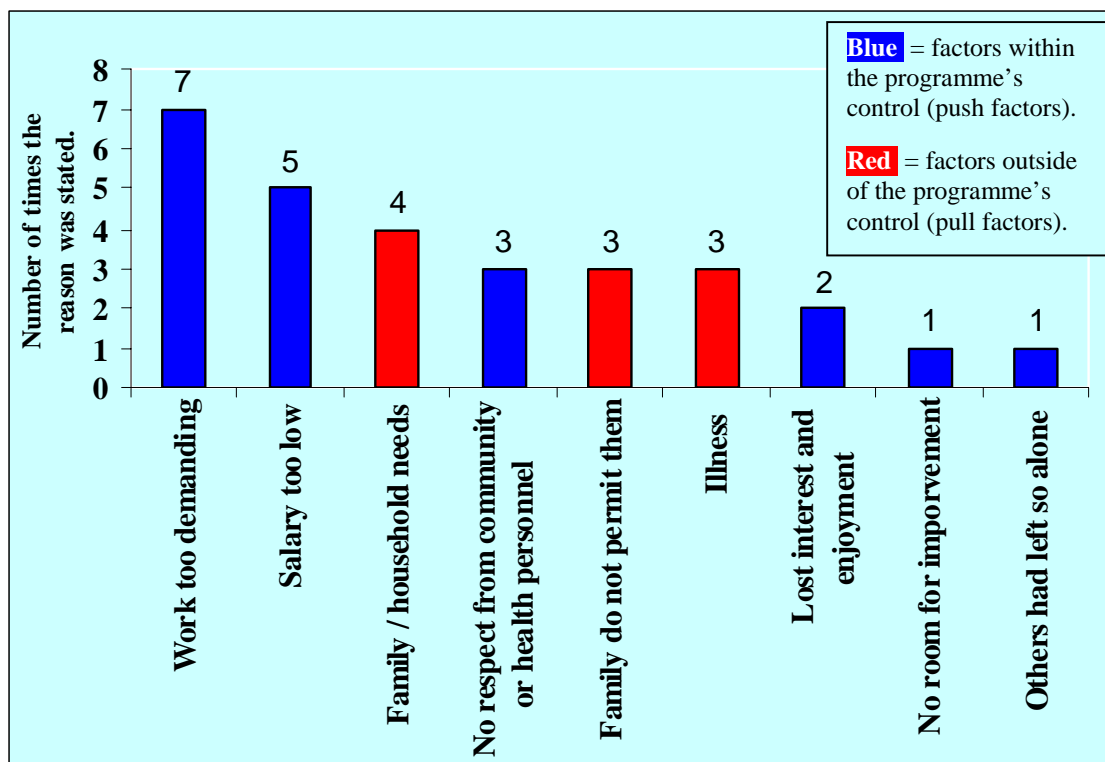
Unfortunately, there is a large mismatch in the two data sets. Monthly data shows 439 LHWs to have left the programme in the 12 years between 1996 and 2008. Yet, if the total annual attrition rates are used (recorded in the annual data), 426 LHWs have left in just 5 years. Even with the sharp increase in the total annual attrition rate in the later years these figures do not agree.

This limited and poor quality data allowed for the following weak conclusions: the monthly attrition numbers may well be higher than recorded; the rate of attrition appears to be increasing and mainly due to more drop-outs. The DHO must improve its record keeping so details on the location, marital status, age and length of service of all LHWs are accurate and problem areas and trends can be reliably identified. It should set-up an effective complaints procedure, as with no records of formal complaints the current system cannot be working, and fully investigate all complaints to correct or minimise problems. The recent plans to computerise the programme's human resources should make this task easier and allow for cross examination of data.¹⁹

5.2 Reasons why the Lady Health Workers chose to resign.

Most women stated more than one reason for leaving the programme and felt it was a combination of factors, see figure 4.

Figure 4: Reasons why the Lady Health Workers chose to resign.



5.2.1 Reasons outside of the programme's control.

Just over one third of the reasons why the LHWs left the programme relate to factors that cannot be controlled by programme management. These three issues - the need to concentrate on family duties, illness and family opposition to their work - are hard to predict or fairly minimise.

Interestingly, none of the four women with family duties (two married, one single and one widowed) stopped because they had started a family of their own. Instead, it was due to others within their family moving away or dying, and therefore hard to anticipate.

Three, single, LHWs stopped work because their families disliked them working; *"my brothers think the women go too far away and there is too much gossip within the community"*(3R). Yet, these LHWs said their family would allow them to continue their work if they could just run their health-house or, for one, if the area is made smaller, *"they (the LHWs) go there and go far away and I won't permit this...The area needs to be smaller and based at home then it is ok"*(father of 8R).

An adjustment to LHW mobility and area size would decrease the effectiveness of the programme. However, it seems single women are more likely to be prevented from working by their families so altering the selection criteria could decrease this form of attrition without damaging the programme's function. As with Bangladesh's female CHW programme, the job could be limited to married or widowed women whose family must also give consent³². Yet, tightening the selection criteria risks decreasing the availability of women able to work as LHW in areas where recruitment is difficult and the requirement of marriage could be seen as discriminatory.

5.2.2 Reasons within the programme's control.

Nine of the ten participants with reasons for leaving that are outside the programme's control, also stated one or more reasons that pushed them away from the programme. These can be more directly addressed by programme management and are therefore of greater importance. However, they are hard to examine in isolation due to overlap of issues and the unique characteristics of each LHWs situation and experience.

5.2.2.1 Work

The most common reason for leaving the programme, cited by seven women, was that the job was too demanding; *"They (the LHW programme) demand that when a new family comes to the community they (the LHWs) should go and welcome them, they (the LHW) must start at 8am, they have to go to the dispensary, and they have to go to workshops. It was very hard"*(2U). In particular, polio vaccination work was said to be too hard as the *"ladies need to go far way and go door-to-door"*(9R). Polio field work also presented problems with safety and family dissatisfaction.

Interestingly, some key informants thought work might be a concern for the LHWs but it was not mentioned in the LHSs' FGD. Although incorrect expectations of the job were

not revealed in the LHW interviews, the LHSs thought that most LHWs *"think(s) it will be easy, but there is too much work and it is overcrowding her(LHW) life."*(FGD) This mismatch in expectations could be a reason for the LHWs finding the workload too demanding.

Five of the seven women had no major problem with pay, just the demanding work, although they still thought the pay was unfair. Fittingly, none had taken new paid employment, although two women had stopped due to family's needs and so could not take new work. This could suggest that a decreased need or desire for paid work makes the work load seem more of a burden.

5.2.2.2 Money

Inadequate pay was the second main reason for LHWs to leave the programme and stated by five women who felt the pay was not enough to meet their needs. *"The pay was too little to support her wider family, she is unmarried, and she could earn more through work at the clinic."*(5R) Appropriately, this group of ladies included the three women who found new paid work after resigning. These women also had higher education levels than required and so were able to find better paid employment.

Interestingly, three of these five women felt that the work load was manageable; *"Too little money was the only reason, she could do all the work fine"*(5R). This supports the earlier suggestion about the relationship between the need for paid work and the perceived burden of the workload. It hints that if you need paid employment you find the work less demanding but further exploration is needed to determine why some LHWs find the work fine and others struggle.

Poor salary was mentioned as a dissatisfaction by all bar one of the participants, even if not as a direct reason for leaving - *"The work required is high and had increased over the years yet the pay had not. It should be more."*(2U) Others also complained that the pay was not regular and one lady said that *"in 2005 she never got paid for 5 months work as the new LHS made a wrong account number for her"*(6R).. Some suggested that the salary should be between Rs5-6000 per month, four wanted the job to have a pension whilst two said it should have a fixed position rather than an annual contract. Asfar and Younus found the LHW salary to be not enough for the work load assigned, however, this study was before the recent pay rise.⁶ The FGD also showed money to be a problem but was thought to be less important than pregnancy and marriage.

With over 40% of the reasons why the LHWs left the programme relating to workload or pay, it is clear that the balance is incorrect. However, increasing the salary or providing a pension is difficult as even a small improvement generates a large financial burden and the programme already consumes a large proportion of Pakistan's health budget. Yet, when pay does not meet a LHWs needs, even if job satisfaction is high, she will be forced to find better employment. Perhaps ensuring that pay is regular and making the job a fixed position would make this less of a problem.

A reduction in workload would improve job satisfaction and reduce attrition but also

compromise the effectiveness of the programme. Due to the many problems associated with polio work it may be useful to make this an additionally salaried option. Therefore, those with dissatisfactions can opt-out of the service and others who need extra money can benefit.

5.2.2.3 Respect:

Information from the background activities showed respect, from both health personnel and the community, to be important, whilst previous research notes respect as an incentive for retention and motivation^{16,33}. Rightly, the FGD and some key-informants suggested that some LHWs may have problems with respect, especially mentioning single LHWs.

All the participants felt they had a good relationship with their LHS, "*who are like family members, friendly and cooperative*"(4R). The majority had a strong relationship with staff at their BHU, though one lady had no interaction at all. Similarly, nine of the women felt their community respected them and that men were pleased because "*their women can stay inside and get help and they do not need to go outside for help*"(1U).

However, three married women had left the programme because of problems with respect from both the community and other health professionals. The issues ranged from men talking about them in a bad way to people not welcoming them to their homes. "*The problem is with our society, with men, they talk about her (the LHW) badly and this gives LHWs a bad reputation. They do this about her regular work and door-to-door polio work and then LHWs get less respect for no reason of them. Men make a bad impression for ladies work, they call them 'the equipment of family planning.'*"(11U).

One LHW was new to an urban area and felt "*insults as the people don't welcome her to their homes as the people are fearful*" (7U). Most participants thought respect is more difficult in urban areas where "*the people are fearful, they think is it a thief, is it a terrorist? They think this with every person, no-one gets permission*"(7U).

The same three women felt that health professionals, mainly males at the BHU, did not respect them. Fortunately, none of the LHWs felt harassed but the way in which staff from the BHU visit the LHWs house was not appreciated. "*The BHU are disorganised, they should plan their work for everyday and tell the LHWs so they have a social life. They are not proper in their work, they should inform the LHW before coming and they are rough in their comings and intrusive.*" (11U) These problems were echoed in the interview with current LHS; "*They (the BHU staff) don't understand we are part of the BHU and they don't respect*"(LHS interview).

Two other women mentioned that the irregularity of their medical supplies and equipment interferes with them working effectively and damages their respect. One suggested seasonal variation in supplies so they relate to need, with more cough medicine in winter. Mumtaz and Salway study also found that poor equipment undervalues LHW professionalism and causes the community to view the LHW as less well trained.⁴

One participant suggested using official LHW identity card to help improve respect; “*We need a card of recognition so we are recognised at hospitals and other health services otherwise people don’t respect LHWs*”(12U). This would be of most benefit to urban LHWs who sometimes must interact with staff at larger health facilities or hospitals and within their community, as the LHW is less well known. George also proposes that visual forms of recognition and clinical symbols, such as positions of employment, may be more important for females who must overcome gender-based biases and discrimination in the workplace and that they can be used to encourage commitment.⁵

Other suggestions that may help improve respect include greater integration of LHW staff at the BHU through coordinated training, improved health personnel education on the roles of a LHW and a reliable complaints process with full investigation and discipline. However, altering the community's respect for the LHW relates to the selection of the LHW and her personal conduct. Therefore, community involvement in the selection process must be maintained and personal favouritism or bias must be minimised.

5.2.2.4 Minority reasons:

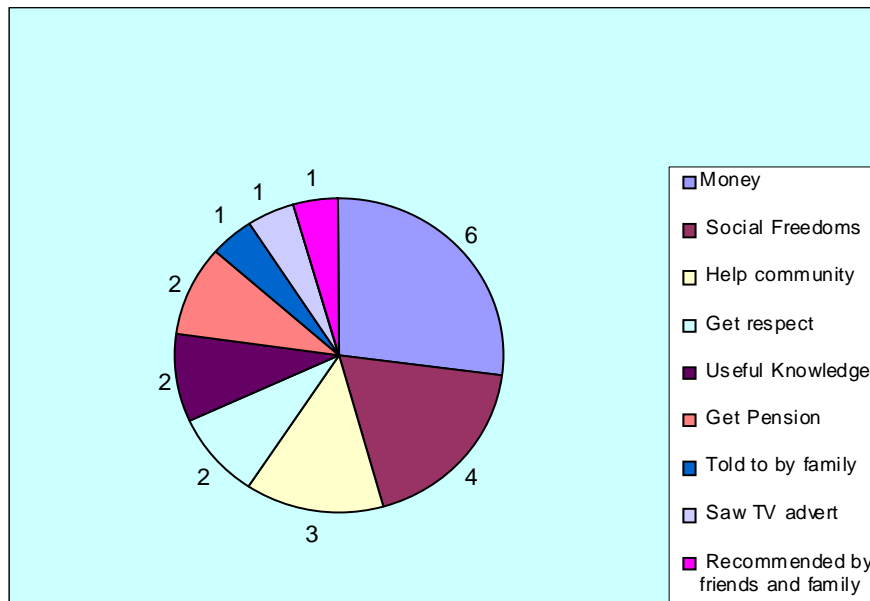
Two LHWs said they had lost interest and enjoyment in their work and one women did not like being alone in the job. This reflects non-specific dissatisfaction and suggests that once one LHW leaves others are more likely to quit as the support and friendship from their colleague is lost. The current LHW interviewed supported this by explaining that “*there are now only two LHWs in her area as the work is so hard. This makes it harder for them and less enjoyable so it makes them want to leave more*”(current LHW).

The final reason, mentioned by one LHW and as dissatisfaction by five other LHWs, was the lack of improvement and promotion possibilities. Some participants wanted certificates for their training and experience, perhaps for use in finding other jobs. The position of LHS is not possible for these women, even though most meet the criteria, due to family restrictions on their mobility. The position of Lady Health Visitor (LHV), a female health worker with 10th grade education and 3 years training based at the BHU, was more attractive due to its static nature and two women have started this training.

5.3 Reasons why the Lady Health Workers joined the programme.

It is important to examine reasons why the LHWs joined the programme, figure 5, to consider whether their wants and expectations were accurate and likely to be met.

Figure 5: Reasons why the Lady Health Workers joined the LHW programme:



Money was the most common reason why these LHWs joined the programme, stated by six women, and, therefore, unsurprisingly, a dominant reason for leaving. However, the LHWs should have known their salary prior to joining and so the dissatisfaction is due to changing family financial situations, such as widowhood. However, false financial expectations of regular pay and, held by two LHWs, of receiving a pension, have created disappointment, although not directly resulted in women leaving.

The next reason, stated by two married, one single and one widowed woman, was their desire to increase their social freedom. The job undoubtedly gives women increased social interactions and mobility and so this expectation is met. However, these freedoms are negative for some families who, as seen earlier, may stop their female relative from working as a LHW. Interestingly, there was no overlap between the participants who joined the programme to increase social freedom and those whose family members asked them to stop.

Three women became LHWs because they wanted to *“help the community and the women and children who can not go out of their homes”* (IU). This personal desire generates enthusiasm and commitment and so it is a shame that such LHWs left. However, two did so due to family needs and illness rather than being pushed away.

Two women joined the programme to increase their knowledge and another two to get respect from the community. Fortunately, all of these women felt these aims were achieved and none had problems in these areas. Interestingly, respect was also not found to be a reason for joining in Afsar and Younus’ study⁶. Two other women’s reasons related to recommendations for work as a LHW from friends, family or television adverts. These outside influences are often biased and so encourage false expectations, although the women mentioned nothing specifically, they had a more positive anticipation of the

work than the reality.

In summary, the main incentives that attracted the women to become LHWs were realistic and most women felt their expectations were quite accurate, except the two who were wrongly informed about pensions. Most of them agreed that they did not expect such a high volume of work.

5.4 Other dissatisfactions with the programme.

5.4.1 Training

All but one of the women wanted more training and felt that they were not taught enough. In particular, more gynaecological, family planning and child health training is wanted along with skills for blood pressure, blood sugar, injections and other diseases. Three women wanted emergency training and three others thought LHWs should have the same level training as LHVs, *"as they do more work than them in the community"*(10R). The majority of the participants also wanted more refresher training with more frequent inputs, *"because there is only 8th grade education so forget but the demand of time is hard"*(6R).

This desire for increased knowledge and more frequent refresher training directly contrasts with the majority opinion that the workload is too great. However, it is supported by findings from the FGD which also especially identified that LHWs want and need more family planning training. Other key informants and background papers suggest that more training is needed yet they are aware of the danger of overworking the women.^{6,19}

It appears that once the LHW is with a patient she wants to know and be able to do more. It is the size of her area and the number of door-to-door visits that make the work so demanding, not the work once she is with a patient. They also felt that if they had more skills, especially injections, they would have greater respect within the community as *"people say 'you can get paracetamol from any store, why come to you?'"*(6R).

As mentioned above, many LHWs want to improve their skills, others have joined the programme to increase their knowledge or to help people, therefore, these women must feel they are continuously learning to avoid their dissatisfaction. More frequent training is needed to both stimulate LHW interest and improve performance, yet, given their limited time and education level creating the correct skills and training balance is a challenge. Perhaps, providing optional training courses and certificates of training and experience could be useful.

5.4.2 Safety:

Half of the participants always felt safe in their job, whilst, another quarter did not feel safety was a major problem. However, three women, one married, one single and one widowed, from both rural and urban locations, did not feel safe, especially in distant

areas. One woman said, “*she looks like a gent, not a lady, she is so strong, so it is mainly ok and she still goes to far off places even though safety is less because she is very keen to do her work so doesn’t mind the risk*”(9R). Others felt they needed a male guard and pick-and-drop services from the BHU as “*it is not right to go alone to other areas*”(8R). The LHS interviewed also mentioned that polio work is not always safe for women. Interestingly, many of the key informants and LHSs felt that safety would be more of a concern for unmarried women but this was not detected.

6 **LIMITATIONS:**

It is important to recognise the weaknesses of this small study as a contribution to the LHW programme and the field of international health. The wide geographical, cultural and ethical variation of Pakistan means it is difficult to apply the findings from any single district at national or provincial level, giving the study limited transferability. However, the general lessons can be loosely applied to most salaried female CHW programmes in South Asia.

Reliable knowledge of the distribution trends and estimated attrition rate of LHWs within the district was not achieved. This gives the study an incomplete background and prevents identification of a type of LHW or region that is most at risk of attrition, decreasing the value of the study. No information was available on how or why the programme categorised LHWs into 'termination' or 'drop-out'. This makes categorising attrition quite difficult as their may be overlap and misplacement.

The study may have suffered from an unfair selection of participants due to difficulties encountered whilst trying to locate participants; the small size will have exacerbated this problem. However, most of the Tehsils were covered and the demographics of the participants were kept broad. Gender dynamics would have been better understood if the study had also included males who work at BHUs. Some of the key-informants were male but they do not interact with the LHWs regularly.

Unfortunately, both budget and university requirements restricted this study to a first-time, student researcher and prevented professional advice. A second person's input would have increased reliability of the findings by re-checking transcription and analysis for errors. It would have been especially useful in identifying preconceived ideas and bias in discussion. The researcher sought to remove such bias through the use of reflective accounts although personal critique is most difficult.³⁴ Triangulation was used to cross-check the interview data with information from a wide variety of background activities and different data collection techniques. This has enhanced the validity of the findings and comparison with material from previous studies shows the findings to be as expected.

In summary, the data collected has weaknesses but was satisfactory to achieve most of the study's objectives, except objective 1. It allowed exploration into the topic, an understanding of the experiences of LHWs who recently resigned, and recommendations for the programme.

7 CONCLUSIONS:

It was not possible to determine reliably the attrition rate or distribution of LHWs within Rawalpindi district. However, it appears that the rate at which LHWs are leaving the programme is increasing, possibly due to a greater number of drop-outs, rather than terminations. Better record keeping is needed so the trends and demographics of attrition can reliably highlight problem areas. Similarly, a robust complaints procedure and investigation protocol must be developed.

There is little difference between the reasons why rural and urban LHWs leave the programme and their marital status also holds little difference. However, single LHWs are more likely to be stopped from working by their families than married or widowed LHWs.

Two thirds of the reasons for LHWs leaving the programme are within the programme's control, 40% of which relate to the demanding nature of the work and inadequate pay. These issues were also noted as dissatisfactions among LHWs who left for other reasons. Community respect and the LHWs' relationships with other health personnel are other push factors identified together with limited room for improvement and promotion.

Reasons for leaving outside of the programme's control are illness, family needs or family dissatisfaction with their relative being a LHW. However, all but one of the women with such pull factors also stated push factors that drove them to leave the programme. It was noted that an increased volume and frequency of training, better safety and removing the duty of greeting foreign visitors would increase job satisfaction.

The main suggestions to help overcome these issues, table 6, include making polio work optional and additionally salaried in order to create flexibility in the balance between workload and salary. Provision of LHW identity cards and regular medical supplies could help improve community respect and interaction with other health professionals while limiting the job to only married women with family permission may decrease attrition due to family dissatisfaction.

Further research is needed to examine this topic in different districts so that it is clear whether the findings can be generalised. Likewise, investigation is needed to determine why some women find the work so demanding and others appear to have no problem as this is the major push factor. Only with greater understanding in these areas will the programme know how to alter the work and pay ratio to satisfy the majority of LHWs.

Table 6: Suggestions that may help address Lady Health Worker attrition.

Problem:	Suggestion:
Inaccurate and unreliable estimates for LHW attrition rates and their distribution.	Improve record keeping and data collection on LHW characteristics and analyse it regularly to identify trends in rates and demographics.
Ineffective complaints system	Set-up robust complaint channels, systems for investigation and policies for discipline
Single LHWs are stopped from working by their families.	Change selection criteria so only married or widowed women with family permission can join the programme.
Workload load too great for pay provided	Make polio work optional and with additional pay.
Poor respect from community and health staff	Ensure medical supplies are regular. Increase other health personnel's education about LHWs. Provide LHW identity cards to show to new health personnel and families.
Limited room for improvement or promotion	Consider providing certificates of training and experience. Provide optional training courses.
Desire for more refresher training and increased skills.	Provide more and optional training, Investigate the benefits of teaching LHWs more skills

7.1 Reflective Conclusion:

Through planning, implementing and writing this project I have had many new and sometimes difficult experiences. I learnt how to follow my interests in a topic but also to limit myself to realistic goals and to set time and budget deadlines. I had to adapt my UK plans for a perfect piece of research to the reality of Pakistan and accept the challenges of field work which make some-things impossible. I now know to be pleased with what you can get, as long as it is satisfactory, rather than to always strive for an impossible ideal.

The environment of public health professionals and government officials was extremely intimidating and a world away from the cushioned set-up of university. I soon learnt to change any laid-back student ways to more professional conduct and how to be direct about my aims, openly explain personal weaknesses and, hardest, to ask for help.

Coming to Pakistan as a single female with few contacts and no previous experience in the country or research was definitely intimidating. I found it hard to remove preconceptions and ideas developed from my detailed background research in the UK. This made factual examination and simple documentation of situations difficult as my prior thoughts clouded my judgement. It also took a while for me to begin to correctly understand the cultural and societal norms. In hindsight, it would have been better to use more time to acclimatise and get to know the people rather than rushing straight into the research.

The analysis of data was extremely difficult and time consuming whist I found it hard to trust my interpretation or identification of trends. However, I am now quite proud of independently completing a small research study from start to finish and I am glad of my persistence. Overall, it was enjoyable; I am now more creative, adaptive and confident and have a much greater respect for researchers and their work. However, most satisfying is my new love for Pakistan and its people.

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APPENDICES

Appendix I: Ethical considerations and informed consent form.

It is important with all research that the wellbeing of the participants is made top priority and that this never compromised. Research must have minimal impact and the least potential for harm on all participants. Sensitive planning was used to identify any potential problems and ensure that confidentiality, anonymity and privacy was constantly maintained by both the researcher and others involved. Thought was given to where the interviews were held so that the participants would feel detached from the LHW programme and how to store data so that it is safe and confidential. Only females were involved and all of similar ages and as far as possible backgrounds. The researcher is a white British female and so some differences were unavoidable.

The informed consent form, written in English and shown below, was read allowed in Urdu to all the participants. The translator used lay language to explain points before any questions about the research were answered. The programme managers thought this to be satisfactory and more user friendly than using a written version in the Urdu language. A similar type of form was read to all the participants in FGD and their oral consent gained. All the other background activities took place with verbal consent after the researcher had explained the project in person.

The informed consent form was based on the World Health Organisation's template for clinical research studies but once in the field, oral consent alone was considered enough and signatures were not required. However, contact details were provided to all participants in case of the want to follow up. The translator signed a form with agreement to treat all the information and informants with confidentiality and anonymity.

Consent for the interview to be audio recorded was gained after informed consent for the interview. One participant did not want to be recorded and so detailed notes were taken with this participant.

**Institute of Health
Sciences and Public
Health Research**

Interview Informed Consent Form:

Researcher: Harriet Burn
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A research project: What causes Lady Health Workers to leave Pakistan's National

Programme for Family Planning and Primary Health Care?

Information on research project:

I am a student from Leeds University in the UK who is doing research into the reasons why Lady Health Workers leave the Lady Health Worker Programme in Pakistan. The purpose of doing this research is to help improve the Programme's affectivity through making it a better employer of Lady Health Workers. The study is part of my degree in International Health and is independent of the Lady Health Worker Programme. The research involves interviews and discussions with people who have been involved with or work for the Lady Health Worker Programme.

You have been approached as a potential participant due to your knowledge on the Lady Health Worker Programme. I would very much like to interview you about the Lady Health Worker Programme but you are not obliged as you have the right to refuse. Your participation should be entirely voluntary.

The interview will take about half an hour and be audibly taped. All participants will be treated confidentially and anonymously and there is no risk involved. You will be informed about the findings of the study and you are free to contact myself about anything using the contact details above.

This proposal has been reviewed and approved by the UK Ethical body and has local approval within Pakistan. These are committees tasked to make sure that research participants are protected from harm.

Interview Informed Consent Form:

Thank you very much for agreeing to take part in this research and be interviewed by Harriet Burn from England and her translator, Tahira Pervaz from Rawalpindi. By verbally agreeing or giving your written signature you are agreeing that:

1. The purpose and nature of the interview has been explained to you.
2. You have been given the opportunity to ask questions and discuss the study.
3. Questions you may have had about the purpose and nature of the interview have been answered to your satisfaction.

4. You understand that your name and identity will not be used in this study and all information will be anonymous and confidential. However, you are free to contact the research at any time on the contact details provided.
5. You understand that you are free to withdraw from the study at any time if I wish and that you are free to choose not to answer a question or questions and do not have to give a reason why.
6. You voluntarily give consent to be interviewed as part of the study.

Name of interviewee: _____ Date: _____
Signature: _____

I have explained the research project and the implications of being interviewed to the interviewee. I believe that the consent is informed and a copy of my contact details have been provided to participant

Name of interviewer: _____ Date: _____
Signature: _____

Appendix II: Interview schedule.

The interview schedule outlined below was originally based on background knowledge from previous research. Once in the field, it was revised to reflect opinions and information gained from the background activities. The social acceptability of the questions were checked and piloted on a resigned LHW. It was updated after the initial analysis of each interview in order to be responsive and framed around relevant material.

The relaxed and flexible nature of the interviews allowed for deviation from the schedule so that the most appropriate information could be focused on with each participant and a trusting relationship developed. Therefore, the interview schedule was used as a guide to ensure a consistent approach. The list of probing questions under each open question was

avoided when ever possible but used to encourage greater discussion when the participant was less forthcoming. The list also served as a useful check list to ensure all required areas are covered.

The guide used for the focus group discussion is also shown below. This followed the same steps described above for the interview schedule but was not piloted due to its similarity with the interview questions. Obviously, it was not further adapted as there was only one focus group discussion.

Semi-structured interview schedule.

Resources used: Tape recorder, paper for note taking and the female translator.

Section 1: Introduction:

- Introduce myself and the translator,
- Introduce the research – what it is on, why the participant has been asked to be interviewed, what the research hopes to achieve and how the research will affect the participant.
- Obtain informed consent (including that for tape recording) and reassure the participant about confidentiality and anonymity and encourage her to speak about all types of matters.

Section 2: Easy to answer factual question:

Gain basic demographic details and information on:

- The age of the,
- Her marital status,
- The number children,
- Her family details,
- Her education level,
- When she joined the LHW,
- How long she worked as a LHW for,
- When she left the LHW programme,
- Whether she had previous paid employment,
- If she has taken or tried to find new paid work since resigning,

Section 3: Interesting open questions.

Q.1 - Why did you decide to leave the LHW Programme?

- Can you think of any other reasons?
- Which reasons do you think are most important?
- What is bad about these reasons?

Probing questions if needed:

- Financial reasons – not enough money, didn't need the money.
- Work reasons- too hard, distance to travel too far, too much time, hierarchical management, abuse of power, a lack of reward and career advancement,

insufficient resources (medical supplies and equipment).

- Family reasons – children need her attention, need to do house work, husband or extended family do not like her working, (if so, WHY - male status that dictates they should be the sole provider? Stigma of here working, fear for her safety?).
- Community acceptance – lack of sensitivity to women's gender-based cultural constraints (if so, HOW - does it impact upon them and their family? Is it common for women to take work in their community?)

Q.2 – *Why did you decide to become a LHW?*

Can you think of any other reasons?

Which reasons do you think were most important?

Probing questions if needed:

Respect – from community, family, patients

Financial reward and need for money

To be able to help people

Q.3 - *Was the work as a LHW like what you expected?*

If yes, how did you know what to expect?

If no, can you explain what you expected the work to be like?

Why did you expect the work to be like this?

Q.4 – *What dissatisfactions did you have with your job as a LHW?*

Can you think of any other problems you had?

Which dissatisfactions do you think were worst?

Probing questions if needed:

Support – from the LHW programme and LHS,

Relationship with other health staff?

Relationship with the community?

Training?

Promotion?

Section 4 – Questions on more sensitive issues.

Q1. *Do you think LHWs ever feel unsafe?*

If yes, when and why?

Probing questions if needed:

Sexual harassment

Male colleagues

Males in the community

Q2. *Questions relating to sensitive issues noticed earlier in the interview or not previously*

mentioned to gain clarification on:
their social-economic background,
cultural queries
family matters
their relationship with staff
their relationship with their community.

Section 5 – Conclusion.

- Summarise the main points about what has been said,
- Check if this is what the interviewee meant to say and that she has been understood correctly.
 - Ask if the interviewee has any questions or points she wishes to add which weren't covered
- Thank interviewee for their time and cooperation and reassure them that they should contact you if they ever have any queries.

Focus Group Discussion Guide.

Resources used: Tape recorder, paper for note taking and the female translator.

Section 1: Introduction:

- Introduce myself and the translator,
- Introduce the research – what it is on, why the participants have been asked to be part of a group discussion, what the research hopes to achieve and how the research will affect the participants.
- Ask the participants to briefly introduce themselves and where they are from.
- Obtain informed consent (including that for tape recording) and reassure participants about confidentiality and anonymity and to speak out on all types of matters.
- Ask participants to respect what each other is saying and to keep the information confidential.

Section 2: Interesting open questions to encourage debate.

Q.1 - Why do you think LHWs decide to leave the LHW Programme?

- Can you think of any other reasons?
- Which reasons do you think are most common?
- Which reasons do you think are most important?
- What is bad about these reasons?

Probing questions if needed:

- Financial reasons – not enough money, didn't need the money.
- Work reasons- too hard, distance to travel too far, too much time, hierarchical management, abuse of power, a lack of reward and career advancement,

insufficient resources (medical supplies and equipment).

- Family reasons – children need her attention, need to do house work, husband or extended family do not like her working, (if so, WHY - male status that dictates they should be the sole provider? Stigma of here working, fear for her safety?).
- Community acceptance – lack of sensitivity to women’s gender-based cultural constraints (if so, HOW - does it impact upon them and their family? Is it common for women to take work in their community?)

Q.2 - *What do you think LHWs decide to become a LHW?*

Can you think of any other reasons?

Which reasons do you think were most important?

Probing questions if needed:

Respect – from community, family, patients

Financial reward and need for money

To be able to help people

Q.3 – *What do you think LHWs expect work to be like when they decide to join the LHW programme?*

Where do LHWs get their expectations about work from?

Q.4 – *What dissatisfactions did you think LHWs have with your job as a LHW?*

Can you think of any other problems?

Which dissatisfactions do you think are worst?

Probing questions if needed:

Support – from the LHW programme and LHS,

Relationship with other health staff?

Relationship with the community?

Training?

Promotion?

Section 3 – Questions on more sensitive issues.

Q1. Do you think LHWs ever feel unsafe?

Do you feel the community respects LHWs?

Do you feel a LHWs family can be an obstacle to her working?

Probing questions id needed:

Sexual harassment

Male colleagues

Males in the community

Section 4 – Conclusion.

- Summarise what has been said and check if this is what the participants meant to say and that they have been understood correctly.
- Ask if the participants have any questions or points she wishes to add which weren't covered
- Thank all participants for their time and cooperation and reassure them that they should contact you if they ever have any queries.

Appendix III: Full data sets used for the analysis of Lady Health Worker attrition.

Table 1: Total attrition number of LHWs, number of LHW drop-outs and terminations in Rawalpindi District since 1996, from monthly records, between January 2007 and March 2008.

Month	Number of LHW drop-outs	Number of LHW terminations	Total LHW attrition number
January (2007)	155	158	313
February	164	158	322
March	164	158	322
April	168	158	326

May	172	158	330
June	174	159	333
July	174	160	334
August	204	159	363
September	214	165	379
October	223	170	393
November	No data	No data	No data
December	229	170	399
January (2008)	239	173	412
February	245	170	415
March	269	170	439

Table 2: Number LHWs, the attrition of LHWs and percentage of population covered by LHWs in Rawalpindi District, since 1996; from monthly records, between January 2007 and March 2008.

	January 2007	March 2008	Change by number and percentage (%)
<i>Number of LHWs</i>			
Rural	1487	1524	37 additional LHWs 2.4% increase
Urban	174	174	0% increase
Total	1661	1698	37 more LHWs 2.2% increase
<i>Attrition of LHWs</i>			
Dropped out	155	269	Minus 114 LHWs 6.8% loss
Terminated	158	170	Minus 12 LHWs 0.7% loss
Total attrition	313	439	Minus 126 LHWs 7.5% attrition
<i>Percentage of population covered by LHW (%)</i>			
Rural	75%	77%	2% increase
Urban	10%	9.1%	0.9% decrease
Total Coverage	42%	40%	2% decrease

Table 3: Annual total attrition rate of LHWs in Rawalpindi district, from annual records for 2003-2007.

Year	Average number of LHWs.	LHW attrition number	Annual total attrition rate.
2003	1535	70	4.5%
2004	1590	32	2%
2005	1772	55	3.1%

2006	1807	146	8%
2007	1754	123	7%
TOTAL	8548	426	Average = 4.9%

The highlight red numbers show the discrepancy between the two data sets and how the total attrition of LHWs over these two time periods does not correspond.

Appendix IV: Summary of the resignation and complaint letters from 2007.

There were 7 letters of resignation for 2007 which were short and simple with most giving little explanation. There are no letters of complaint. These were translated verbatim from Urdu and provided the information displayed in table 1.

Table 1: Details and information gained from the 2007 letters of resignation.

Letter:	Rural or Urban area	Length of time worked:	Reason(s) for resignation:
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1	Urban	No start date	Request to leave – states that there is no reason for this but she simply wants to stop.
2	Rural	11 years	Family reasons
3	Urban	3 years	Family reasons – therefore is unable to continue but hopes to rejoin the programme in the future if possible
4	Rural	No start date	Family problems
5	Rural	No start date	Family reasons do not enable her to continue
6	Rural	No start date	Illness prevents her from continuing
7	Rural	No start date	No reason given

It is not clear what family reasons or problems mean and could range from a sick relative they need to care for, needing better paid employment, not being permitted to work by relatives or marriage and relocation. Therefore, these letters are not informative and shall not be given importance.

Unfortunately, there were no contacts provided with these for follow up information to be gained. It would also have been an unreliable sampling method as the more conscientious workers are most likely to take time to write a letter of resignation rather than simply stopping as most resigned LHWs seem to do.