

Gender differences in barriers for hepatitis C virus treatment access, uptake and adherence in Alexandria, 2016

Aida Mohey Mohamed

BACKGROUND

The issue of gender difference has not previously been explored for HCV treatment access. Previous studies of self-reported health status have shown that women have poorer health profiles than men across a range of chronic conditions. Early social and medical research on HCV indicated inappropriate treatment and ineffective prevention strategies for women [16]. Chronic illnesses could be managed most effectively when gender-specific health education and support is offered [17]. The present study aimed at exploring gender differentials in barrier factors associated with accessibility and adherence to treatment for HCV from patients' perspectives. This is important in order to develop gender-based guidance regarding HCV treatment access improvement, and the provision of psycho-social interventions targeting patients and providers.

The following research questions were addressed:

- What are the gender variations in the pattern of accessibility, uptake and adherence to HCV treatment?
- What are the gender differences in demographic, personal, psychological, socio cultural and healthcare factors affecting accessibility and adherence to HCV treatment?
- What are the gender variations in the most common perceived barriers to accessibility and adherence to treatment for HCV?

METHODS

A descriptive hospital based comparative cross sectional study was conducted between May 2015 and April 2016. The target population was 240 chronic infected HCV patients who met the inclusion criteria, attending 3 hospitals in Alexandria city. Data were collected through pretested pre-coded structured interview format. The perceived barriers for non-treatment access and adherence is a 17-item scale. Participants rated the extent to which each item was perceived as a barrier to HCV treatment.

Two separate multivariate logistic regression models were fit for each sex. Generalized estimating equation logistic regression was used to evaluate factors contributing to 95% confidence access, uptake and adherence to HCV therapy.

Ethical considerations

The research is in accordance with the ethical guidelines of the modified 1975 Declaration of Helsinki. Personal details of the professional background of the researchers were given to assure participants of the confidentiality of the research and help allay fears of talking about the personal and sensitive topic of HCV. The research ethics committee of the University of Alexandria, Faculty of Medicine granted ethical approval.

RESULTS

There were 115 women and 125 men with chronic HCV infection participated in the study. Only 36.0% of men and 22.6% of women had ever received HCV medication and the difference was statistically significant ($p=0.021$) (Figure 1). Of these, women were less commonly to adhere to HCV treatment than men (30.8% compared to 33.3%). However, this gender difference was not statistically significant ($p=0.395$).

In table (1), several factors were significantly contributing to non-treatment access and adherence. Illiteracy, lack of insurance coverage, lack of knowledge about HCV & treatment, depressive symptoms, felt stigma, unavailability of medication as well as dissatisfaction with HCV health care were determinants that adversely affected women's HCV treatment access. In men, treatment seeking was adversely associated with the presence of comorbid conditions, felt HCV stigma and unavailability of medication.

Barriers that significantly different perceived between women compared with men were as follows: patient level barriers; lack of awareness about HCV and lack of personal financial resources, provider level barrier; communication difficulties. Long distances to a treatment facility was the only healthcare barrier significantly different between the two sexes, with 33.0% of women endorsing this barrier as problematic, compared to 10.0% of men ($P =0.001$). Women more commonly rated community factors as problems compared with men such as lack of HCV knowledge in the community; lack of support group for persons with HCV and feeling stigmatized for having HCV. However, men significantly endorsed more lack of understanding work environment for people with HCV as a barrier (20.0%) as compared to only 5.0% of women ($p = 0.019$), (Table 2).

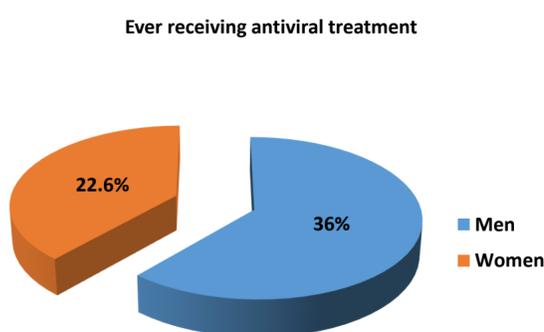


Figure (1): Women and men patients' access and uptake to antiviral medication for HCV infection

Independent factors	Men (n = 125)		P value	Women (n = 115)		P value	
	aOR	95% CI		aOR	95% CI		
Social & Demographic	Educational level (high=0, low=1)	1.2	0.5-3.2	0.248	3.6	1.1-5.8	0.000*
	Insurance coverage (yes=0, no=1)	1.5	0.4-4.8	0.649	2.9	1.3-4.8	0.007*
Individual	Knowledge about HCV & treatment (score %)	2.1	0.6-8.9	0.709	6.10	2.4-8.11	0.000*
	Gender perception (score %)	1.3	0.8-7.9	0.596	0.6	0.3-0.8	0.002*
Psychosocial	Depression (no=0, yes=1)	1.9	0.4-7.7	0.642	4.2	1.8-12.5	0.001*
	Social support availability (score%)	2.2	0.7-8.5	0.721	0.6	0.1-0.9	0.021*
	Overall HCV stigma (no=0, yes=1)	3.6	1.4-7.9	0.001*	10.2	3.7-20.5	0.000*
Healthcare	Availability of medication (yes=0, no=1)	3.8	1.5-8.6	0.000*	5.3	1.3-12.9	0.000*
	Satisfaction with clinical consultation and care (score %)	2.4	0.8-7.9	0.284	6.5	1.6-12.9	0.000*

Barrier	Men (n = 125) (%)	Women (n = 115) (%)	P value	
Patient	Lack of awareness about HCV and treatment	40.0	62.0	0.001 *
	Experience side effects of medication	20	18.0	0.751
	Lack of personal financial resources (transport cost, cost of investigations and treatment)	45.0	57.0	0.003 *
	Presence of comorbid conditions	29.0	33.0	0.387
Provider	Lack of medical professionals who are trained and competent in HCV care	30	30.0	0.543
	Communication difficulties	17.0	28.8	0.018 *
	Patient non-adherence to clinic visits	33.0	32.0	0.731
Health care	Lack of medical coverage	41.0	35.0	0.382
	Long distance to the facility	10.0	33.0	0.001 *
	Lack of transportation	30.0	23.0	0.832
	Lack of psychological counseling	12.0	16.0	0.531
Community	Lack of HCV knowledge in the community	38.0	65.0	0.000 *
	Lack of support group for persons with HCV	20.0	40.0	0.003 *
	Lack of adequate and affordable housing	15.0	20.0	0.647
	Community stigma against person with HCV	35.0	64.0	0.001 *
	Lack of understanding work environment for people with HCV	20.0	5.0	0.019 *
Lack of work opportunities for persons with HCV	30.0	33.0	0.321	

CONCLUSIONS

In conclusion, this gender analysis indicated that social, behavioral, clinical, and health service characteristics associated with HCV access, uptake and adherence are potentially different among women and men.

Whereas among men, these factors directly related to comorbidity, availability of medication, perceived self-efficiency, and felt stigma. The treatment non-access among women was more clearly explained by socio demographic (i.e., educational level, insurance coverage) and individual (i.e., knowledge level and gender perception), psychosocial (depression, social support and social stigma) and healthcare factors (availability of medication and satisfaction with the clinical consultation).

Early intervention strategies to improve treatment access, uptake and adherence should focus on these differences and on an integrated assessment of clinical, counseling, social, and work support, while facilitating access to health services.

REFERENCES

- Berg KM, Demas PA, Howard AA, Schoenbaum EE, Gourevitch MN, Arnsten JH. Gender differences in factors associated with adherence to antiretroviral therapy. *Journal of General Internal Medicine* 2004;19(11):1111-7.
- World Health Organization Regional Office for Europe: Barriers and facilitators to hepatitis C treatment for people who inject drugs: A qualitative study. Copenhagen: World Health Organization Regional Office for Europe; 2012.

CONFLICTS OF INTEREST

The authors have no conflict of interests to declare.

Contact Information

NAME: Aida Mohey Mohamed

TEL NO: 002 1227929039

EMAIL: aida_mohey@yahoo.com