

**A Study on Assessment of Consciousness Regarding Health Benefits of Honey Use  
Among People of Central Kashmir**

Dr. Bilal Ahmad Bhat

Division of Social Science, Faculty of Fisheries, Rangil Ganderbal, SKUAST-Kashmir,  
Jammu & Kashmir

Prof. T.A.Chisti Directorate of Distance Education, University of Kashmir, J&K

Dr. Syed Sabahat Ashraf

*Regional Research Institute Of Unani Medicine, Naseem Bagh Campus, Hazratbal.*

*Srinagar, Kashmir, J&K*

*[bhat\\_bilal@rediffmail.com](mailto:bhat_bilal@rediffmail.com)*

**Abstract**

*Honey since time immemorial has been accepted as food and medicine by all generations, is a sweet, flavorful liquid containing sugars, small quantities of proteins, enzymes, amino acids, minerals, trace elements, vitamins, aroma compounds, and polyphenols heavily used by Asian countries such as India, Srilanka, Nepal and Pakistan in their traditional medicinal systems. Honey is referred nearly in all major religions of the world. Honey bees are an important part of both our agricultural economy and the overall ecosystem as they provide free ecosystem services in the form of pollination. Apiculture (Beekeeping) is at fast rate becoming an income generating activity. It is reported that honey is used as a remedy for wounds, burns, cataracts, ulcers, diabetes, diarrhea, inflammation, gastrointestinal, cardiovascular diseases, etc. The health benefits of honey were traced back to ancient herbal physicians more than a thousand years ago, while, present scientists have also realized its importance with regard to various health issues. The Medical journals cite more than 600 cases in which honey was employed to treat wounds. In this study, a sample of 400 people were selected randomly from Central Kashmir using stratified random sampling technique to get the participants perception towards the use of honey. The data collected from the study population using a validated questionnaire revealed that majority of the respondents were well aware of the health benefits of honey but showed poor attitude towards honey use. The researchers conclude the study by exposing the benefits, precautions and traditional usage of the honey, especially in the light of Unani Medicinal system and Islam.*

**Key Words: Honey, Consciousness, Attitude, Islam, Health, Nutrition, Statistics**

**Introduction**

A sweet and viscous fluid most cherished natural substances known to mankind is Bee's hone which is produced by honey bees from the nectar of flowers, especially by the species of *Apis mellifera* (Ediriweera ERHSS, 2012). The bees first transfer the flower nectar into honey by a procedure of regurgitation and evaporation, then store it as a primary food source in wax honeycombs inside the beehive with the clear, golden amber color. Honey has attractive chemical properties for baking as it is significantly sweeter than table sugar and its flavor vary because the taste of honey is based on the types of flower from which the nectar was harvested. There are

more honey bees globally than other types of bee and pollinating insects, so it is the world's most significant pollinator of food crops. Infact, honey bees represent a small fraction of the roughly 20,000 known species of bees. Presently, only seven species of honey bee are recognized, with a total of 44 subspecies, though historically, from six to 11 species have been documented. Honey bees are an astonishing, highly beneficial insect species on planet earth which are a vital part of both our agricultural economy and the overall ecosystem, including homeowners, wildlife and anyone with an interest in nature. Honey in Ayurvedic scriptures known as *madhu* is one of the most significant medicine used for both internal and external applications in ayurveda. There are eight different types of honey namely Pouttika, Bhramara, Kshoudra, Makshika, Chatra, Arghya, Oudalaka, Dala as per ayurveda. The Makshika honey is considered medicinally the best and Ouddalakam honey is known to increase taste. In the literature we come across various studies (e.g., Adebisi et al., 2004; Durrani, Srivastava and Verma, 2011; Eleazu, Iroaganachi, Okoronkwo, 2013; Allsop and Miller, 1996; Jones, 2001) that reported there is a historical evidence of the harvesting of wild honey, dating back 10,000 years and by 2400 B.C, the art of beekeeping was well established in Egypt at least, and people used honey as a natural food source and also as ingredients in various food preparations. It is reported (e.g., Ali, 1989; Ibn Sina, Murty, 2001) that honey is very good for eyes and eye sight (vision), breaks up hard masses, it quenches thirst, reduce toxicity, stops hiccups, useful for bleeding disorders, in urinary tract disorders, diabetes, skin diseases, worm infestations, bronchial asthma, cough, diarrhea and nausea, vomiting, cleanse the wounds, it heals wounds, helps in quick healing of deep wounds etc. The use of fresh honey increases body weight and the stored old honey helps in metabolism of fat and scrapes Kapha. In Bible, the Christian holy book, it is reported that King Solomon said "eat honey my son, because it is good (James, 1972). Islam, recommended the use of honey, and a separate chapter was devoted in the holy book of Islam, Quran for honey (Quran, An-Nahl (The Bee), 16, 1-128). Allah (SWT) says in the holy Quran "And your Lord inspired the Bee: take your habitations in the hills and in the trees, and in that, which they (i.e., men) erect; Then eat of all the fruits and move about in the ways of your Lord submissively. There comes forth from within their bodies a drink (i.e., honey) of many colours, in which there is healing for men. Therein is indeed a Sign for a people who reflect". (Quran, Surah An-Nahl, 68-69). Holy Prophet Muhammad (P.B.U.H) commented on value of honey 1400 years ago. Once a man came to the Prophet and said, "My brother has got loose motions." The holy Prophet said to him, "Let him drink honey" (Bukhari). It is reported (Bukhari) that one companion of Prophet said, "In our holy battles, we used to get honey". The holy Prophet also said: "Honey is a remedy for every illness and the Quran is a remedy for all illness of the mind, therefore, I recommend to you both remedies, the Quran and Honey" (Bukhari). It is also reported that the great Buddha considered honey to be one of the five essential medicines and food ([www.buddhisma2z.com](http://www.buddhisma2z.com)). The study (Jones, 2011) reported that apart from Muslims the other religions e.g., Hindus and Jews etc. also encourage use of honey as a food and medicine. Worldwide honey in huge quantities is produced, Russia is in the top list followed by India, Mexico, Iran, Romania, Republic of Korea, New Zealand, Poland, and Kenya (<http://www.countryranker.com/top-10-largest-honey-producing-countries-in-the-world/>). Honey mainly consists of sugars and water and it also contains numerous vitamins (mainly riboflavin, niacin, pantothenic acid, pyridoxine, folate, and vitamin C), minerals, proteins,

enzymes (such as catalase, superoxide dismutase, reduced glutathione), flavonoides (such as apigenin, pinocembrin, kaempferol, quercetin, galangin, chrysin and hesperetin), and phenolic acids (such as ellagic, caffeic, p-coumaric, and ferulic acids) (Zumla and Lulat, 1989; Alvarez-Suarez et al., 2010; Eteraf-Oskouei and Najafi, 2013). It is noticed that honey contains antimicrobial agents, which prevent infections by killing the bacteria in and around the wounds. It is noticed that many types of bacteria can't survive in honey, so wounds heal, swelling eases, and tissue can grow back.



The important benefits of honey are given as under:

**Good source of antioxidants:** Honey plays a vital role in the prevention of cancer as well as heart disorders and disease. **Has a low calorie level:** Honey as compared with the same amount of sugar, gives 40% less calories to the body but gives great energy to the body, importantly it does not add weight. **Rapidly diffuses through the blood:** Honey diffuses into the bloodstream in 7 minutes when accompanied by mild water and its free sugar molecules make the brain function better since the brain is the largest consumer of sugar, thus, reduces fatigue.

**Supports blood formation:** Honey provides an essential part of the energy required by the body for blood formation. In addition, it helps in cleansing the blood as it has some positive effects in regulating and facilitating blood circulation. Honey also functions as a protection against capillary problems and arteriosclerosis.

**Does not accommodate bacteria:** The bactericide (bacteria-killing) property of honey named as “the inhibition effect” increase twofold when diluted with water. The newly born bees in the colony are nourished with diluted honey by the bees responsible for their supervision – as if they know this feature of the honey.

**Anti-tussive and expectorant properties:** The anti-cough properties of honey are linked to its capacity to dilute bronchial secretions and improve the function of the bronchial epithelium. **Anti-diarrhoeal properties:** Honey has a bactericidal effect on various gut bacteria at a concentration of 40% known to cause diarrhoea and dysentery such as *Salmonella*, *Shigella enteropathogenic*, *E. coli* and *Vibrio cholera*. Honey given with oral rehydration fluid was shown to reduce the duration of bacterial (infectious) diarrhoea in infants and children.

*Royal jelly:* Royal jelly is a substance produced by worker bees inside the beehive. Inside this nutritious substance are sugar, proteins, fats and many vitamins which is used in problems caused by tissue deficiency or body weakness. It is clear that honey, which is produced in much higher amounts than the requirements of the bees, is made for the benefit of man and bees cannot perform such an unbelievable task “on their own.” There is healing in honey for a variety of medical disorders, certain precautions given below should be taken for use:

- (a). Children under the age of one year should not be given honey due to the possibility of infant botulism. This type of food poisoning can be deadly, however, it only seems to affect infants under one year of age.
- (b). If there are any known allergies to specific plants, then we should make sure the honey we are using is not produced from that diseased plant.
- (c). People with allergies to bee stings should be careful of using bee-related products such as propolis or royal jelly.

### Material and Methods

In the present study carried out in Central Kashmir, we first discuss benefits of using Honey in the light of Ayurvedic scriptures and various religions. Further, a well designed validated questionnaire was used to collect the information from 400 people (selecting 200 from Srinagar, 100 from Budgam and 100 from Ganderbal) using stratified random sampling technique. Data collected from our survey was analyzed using standard statistical tools.

### Results and Discussion

The data presented in Table 1, reveals that out of 400 people chosen for this study, majority of respondents were formally educated (73.5%), majority of respondents belong to middle class families (86.5%) and majority of respondents understudy belong to nuclear families (56.5%).

**Table 1: Sociodemographic characteristics of the respondents under study:**

S.No.	Characteristic	Type	Count	%
1.	Location	Urban	200	50.0
		Rural	200	50.0
2.	Education Status	Literate (formal education)	294	73.5
		Illiterate	106	26.5
3.	Income Level	Low	38	9.5
		Middle	346	86.5
		High	16	4.0
4.	Family Type	Joint	174	43.5
		Nuclear	226	56.5

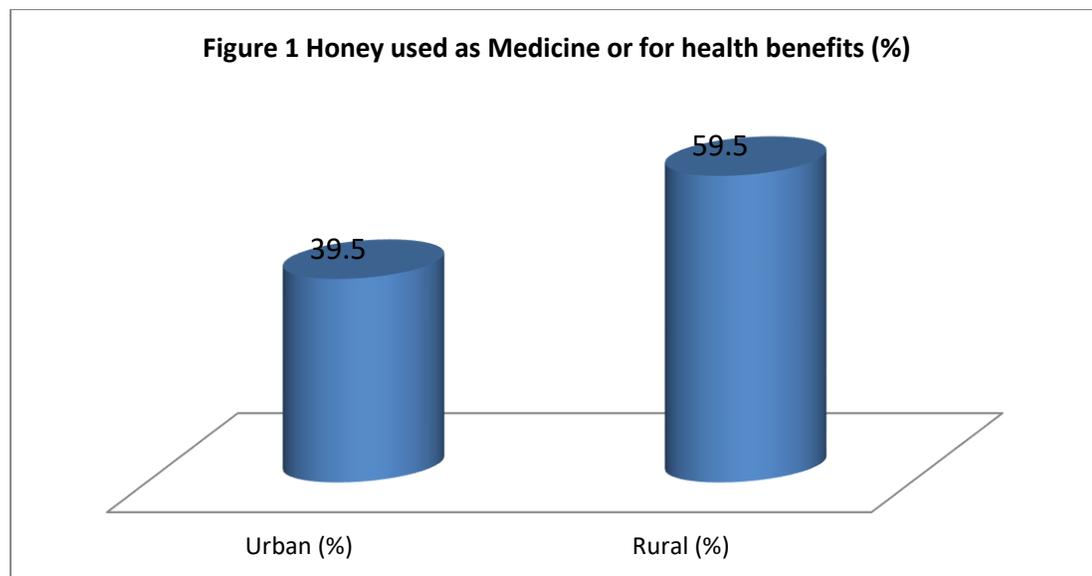
The data presented in Table 2, revealed that in the study population as per the characteristics source of information, majority of the respondents reported that that their main source of information on honey as medicine were parents/grand parents (urban 63.5%, rural 71.5%), Friends/Community members (urban 53.5%, rural 59.5%), Media (urban 57.0%, rural 48.5%), then finally any other source (urban 8.5%, rural 7.0%). Statistically, nonsignificant difference was observed between respondents of urban and rural areas in their opinion regarding statements on sources of information ( $p>0.05$ ).

**Table 2: Main Source of information on honey as medicine:**

S.No.	Source of Information	Variabl e	Count	%	Z   -value	P-value
1.	Parents/grand parents	Urban	127	63.5	1.71	>0.05
		Rural	143	71.5		
2.	Friends/community members	Urban	107	53.5	1.21	>0.05
		Rural	119	59.5		
3.	Media (Print and Electronic)	Urban	114	57.0	1.61	>0.05
		Rural	98	48.5		
4.	Any other	Urban	17	8.5	0.56	>0.05
		Rural	14	7.0		

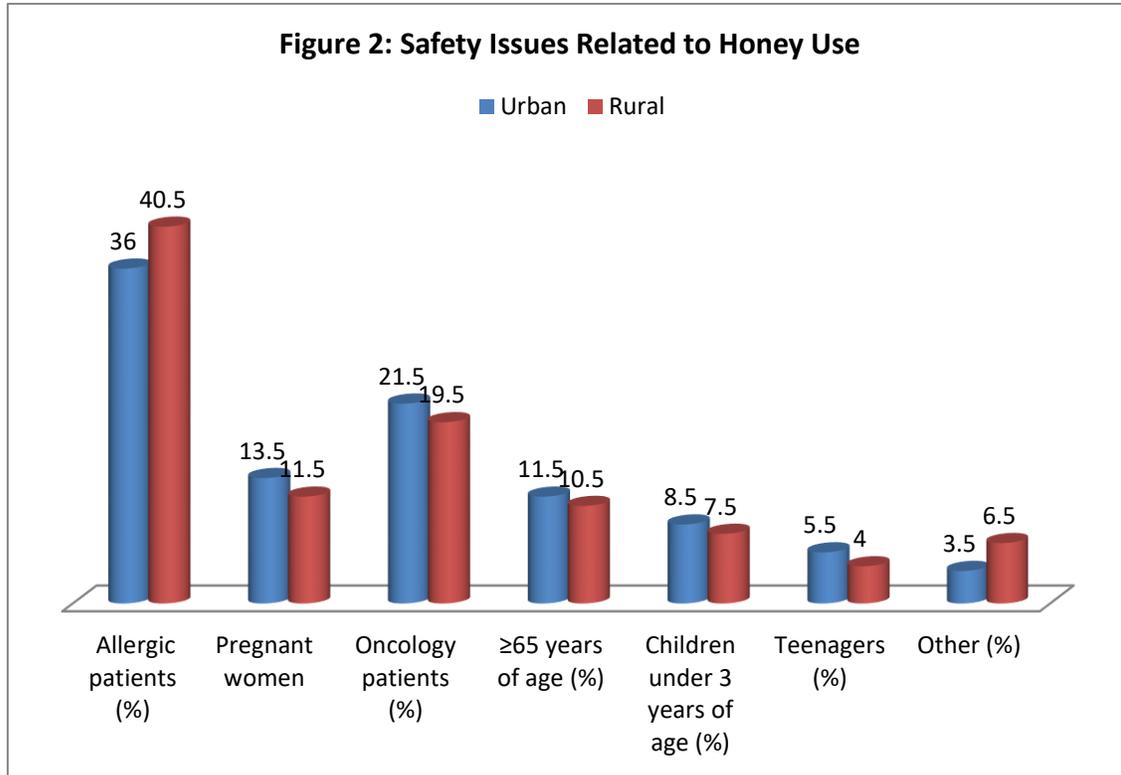
\*Multiple responses were allowed

The data presented in Figure 1, reveals that the respondents understudy (i.e., urban= 39.5%, rural =59.5%) showed positive attitude towards the use of honey as medicine or for health benefits. The respondents further reported that they prefer honey due to its importance mentioned in old traditional as well as in various religious scriptures.

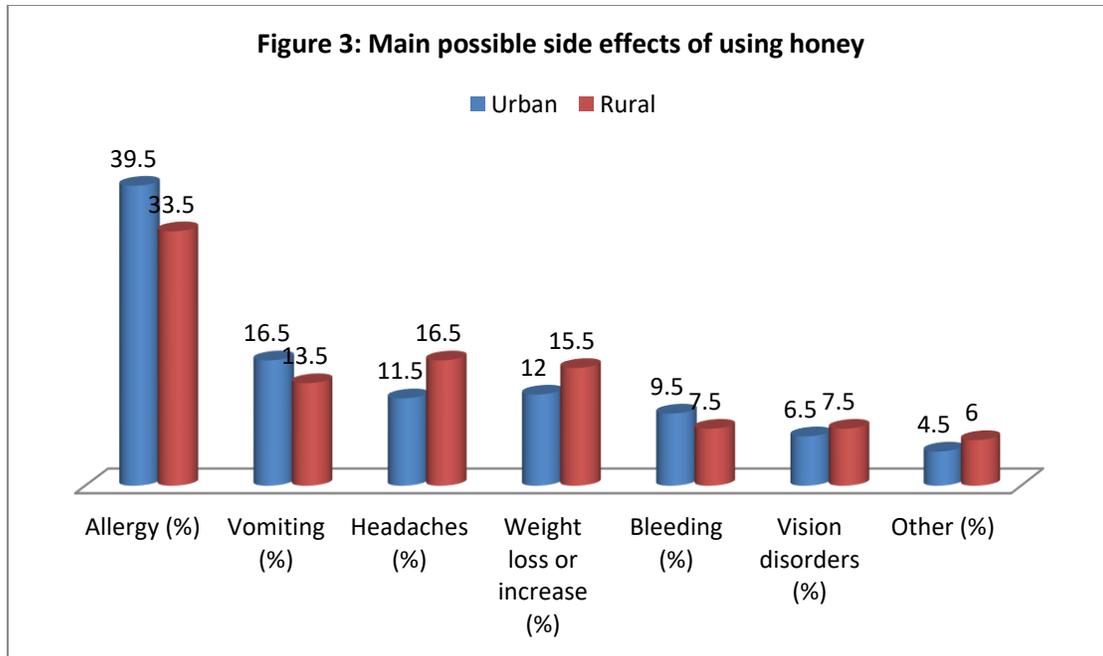


The data shown in Figure 2, reveals that the safety issues of using honey in the opinion of the respondents were allergy (urban 36.0%, rural 40.5%), pregnant women (urban

13.5%, rural 11.5), Oncology patients (urban 21.5%, rural 19.5%), people with  $\geq 65$  years of age (urban 11.5%, rural 10.5%), Children under 3 years of age (urban 8.5%, rural 7.5%), Teenagers (urban 5.5%, rural 4.0%) and other (urban 3.5%, rural 6.5%). The study revealed that the respondents were well aware of the safety issues of using honey.



The data presented in Figure 3, revealed that the most known side effect in the opinion of the respondents understudy were allergy (urban 39.50%, rural 33.5%), vomiting (urban 16.5%, rural 13.5%), headache(urban 11.5%, rural 16.5%), weight loss or increase (urban 12.5%, rural 15.5%), bleeding (urban 9.5%, rural 7.5%), vision disorder(urban 6.5%, rural 7.5%) and other (urban 4.5%, rural 6.0%). The study showed that majority of the respondents were well aware of the possible side effects of using honey. The results obtained in our study are in agreement with the earlier study.



### Conclusion

The present study conducted in Kashmir valley revealed that in view of the high cost and side effects of allopathic medicine, the use of medicinal plants against different ailments plays a significant role in meeting the primary health care needs. Apart from plant-based drugs, honey, a natural substance that has been used since ancient time for food as well as for medicinal purposes worldwide. Scientists due to the validation of ethno pharmacological claims also accept honey as a new effective medicine or alternative medicine for treatment of many diseases. The results of our study showed that rural as well as urban people were well aware about the benefits of using honey and people especially the religious as well as people from poor families showed positive approach towards the use of honey as food as well as medicine during illness. Finally, in view of great role of bees in pollination of various crops, bees need to be conserved for health, economic and environmental benefits. In Kashmir valley there are over 35,000 honeybee colonies and the number of registered honey cultivators is more than 1,484. There is a pressing need of giving mass awareness on significance of bee keeping to the people of the study area. The most important issues related to bee keeping in Kashmir are lack of proper training for beekeepers, the unavailability of preventive and control procedures for tackling pests and diseases and marketing problem.

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