

# **BAB I**

## **PENDAHULUAN**

### **A. Latar belakang**

Rinitis alergi didefinisikan sebagai suatu gangguan hidung yang disebabkan oleh reaksi peradangan mukosa hidung diperantarai oleh imunoglobulin E (IgE), setelah terjadi paparan alergen (reaksi hipersensitivitas tipe I Gell dan Comb). Gangguan hidung dapat berupa gejala gatal-gatal pada hidung yang dapat meluas ke mata dan tenggorok, bersin-bersin, beringus, dan hidung tersumbat.(Bousquet, 2001).

Rinitis alergi menjadi masalah kesehatan global, yang mempengaruhi sekitar 10 hingga 25% populasi. (Sudarman, 1996). Pada negara maju prevalensi rinitis alergi lebih tinggi seperti di Inggris mencapai 29%, di Denmark sebesar 31,5%, dan di Amerika berkisar 33,6%. (Sudarman, 2001). Prevalensi di Indonesia belum diketahui secara pasti, namun data dari berbagai rumah sakit menunjukkan bahwa rinitis alergi memiliki frekuensi berkisar 10-26%. (Baraniuk, 2000).

Rinitis alergi umumnya bukan penyakit yang fatal tetapi gejalanya dapat mempengaruhi status kesehatan seseorang dan menurunkan kualitas hidup penderita. Penyakit ini juga menurunkan produktifitas kerja, waktu efektif kerja, dan prestasi sekolah. Dampak secara ekonomi di Amerika mencapai 3 juta dolar dan tambahan 4

1988

1989

1990

The following table shows the number of people who were employed in the manufacturing sector in the United Kingdom from 1988 to 1990. The data is presented in thousands of people.

Year	Number of people (in thousands)
1988	1,200
1989	1,150
1990	1,100

The table shows a steady decline in the number of people employed in the manufacturing sector over the three-year period. In 1988, there were 1,200 thousand people employed. This number fell to 1,150 thousand in 1989, and further to 1,100 thousand in 1990. This represents a total decrease of 100 thousand people over the three-year period.

Diagnosis Rhinitis alergi dapat ditegakkan berdasarkan anamnesis, pemeriksaan fisik dan pemeriksaan tambahan seperti tes kulit, eosinofil hidung dan eosinofil darah tepi serta IgE spesifik (Terr, 2003).

Leukosit adalah sel darah yang mengandung inti, disebut juga sel darah putih. Didalam darah manusia, normal didapati jumlah leukosit rata-rata 5000-9000 sel/mm<sup>3</sup>, bila jumlahnya lebih dari 12000, keadaan ini disebut leukositosis, bila kurang dari 5000 disebut leukopenia. Dilihat dalam mikroskop cahaya maka sel darah putih mempunyai granula spesifik (granulosit), yang dalam keadaan hidup berupa tetesan setengah cair, dalam sitoplasmanya dan mempunyai bentuk inti yang bervariasi, Yang tidak mempunyai granula, sitoplasmanya homogen dengan inti bentuk bulat atau bentuk ginjal. Terdapat dua jenis leukosit agranuler : limfosit sel kecil, sitoplasma sedikit; monosit sel agak besar mengandung sitoplasma lebih banyak. Terdapat tiga jenis leukosir granuler: Neutrofil, Basofil, dan Asidofil (atau eosinofil) yang dapat dibedakan dengan afinitas granula terhadap zat warna netral basa dan asam. (Guyton & Hall, 2003)

Pemeriksaan eosinofil hidung merupakan pemeriksaan tambahan yang cukup penting untuk mendiagnosis rinitis alergi oleh karena merupakan tes yang cukup sensitif, walau pemeriksaan ini tidak mudah sebab memerlukan pengalaman yang cukup dalam pengambilan bahan apusan, pengecatan maupun penghitungan. (Nugraha BW, 2005)

Terapi rinitis alergi dilakukan pendekatan bertahap sesuai dengan berat ringan

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meliputi penghindaran terhadap alergen, edukasi, farmako terapi (antihistamin, kortikosteroid, dekongestan, antikolinergik), operasi, maupun imunoterapi. (Baraniuk, 2000)

Terapi rinitis alergi secara umum ditujukan mengontrol peran sitokin yang terlibat dalam reaksi alergi. Pada penderita rinitis alergi terjadi ketidakseimbangan antara sel Th1 dan sel Th2. Dominasi Th2 terhadap Th1 tidak hanya diakibatkan oleh faktor genetik tetapi juga faktor lingkungan. (Bousquet J, 2000)

Probiotik merupakan suatu makanan tambahan berupa *viable microbial* yang bermanfaat terhadap tubuh melalui efeknya di saluran pencernaan atau makanan berisi mikroba hidup yang bermanfaat bagi kesehatan. Dewasa ini berkembang teori "*hygiene hypothesis*", yang melibatkan peran traktus gastrointestinal. Penelitian mengenai peran stimulasi mikroba telah banyak dilakukan. Bukti terbaru pada binatang didapatkan bahwa stimuli mikroba yang kurang terhadap sistem imun masa bayi berakibat maturasi Th1 dihambat dan disfungsi persisten respon Th2 terjadi. Paparan mikroba intestinal pada bayi mungkin meregulasi induksi toleransi melawan antigen berasal dari makanan dan kekebalan melawan mikroorganisme patogen yang berpengaruh terhadap proses maturasi sistem imun jaringan limfoid intestinal. Penelitian secara invitro memberi keyakinan bahwa pemberian bakteri *lactobacillus* sebagai probiotik dapat menghambat produksi sitokin Th2 oleh sel mononuklear dari pasien alergi. Pemberian probiotik juga telah terbukti dapat mencegah penyakit atopi.

The first step in the process of developing a business plan is to conduct a market analysis. This involves identifying the target market, understanding the needs and preferences of the customers, and assessing the competitive landscape. A thorough market analysis provides valuable insights into the potential size and growth of the market, as well as the key factors that influence customer behavior. This information is essential for determining the viability of the business and for developing effective marketing and sales strategies.

Once the market analysis is complete, the next step is to define the business's mission and vision. The mission statement outlines the company's purpose and its commitment to its customers, while the vision statement describes the long-term goals and aspirations of the business. These statements serve as a guiding light for the company's operations and help to align the efforts of all employees towards a common goal.

The third step in the process is to develop a detailed financial plan. This involves estimating the costs of the business, including fixed and variable costs, and projecting the revenue and profit over a period of time. A financial plan provides a clear picture of the company's financial health and helps to identify the key areas where the business can improve its profitability. It also serves as a valuable tool for attracting investors and securing financing.

Finally, the business plan should include a marketing and sales strategy. This involves identifying the key marketing channels and tactics that will be used to reach the target market, as well as the sales process and the roles of the sales team. A well-defined marketing and sales strategy is essential for the success of the business, as it ensures that the company is effectively reaching its target customers and converting them into paying customers.

In conclusion, developing a business plan is a critical step in the process of starting a new business. It provides a clear roadmap for the company's operations and helps to identify the key areas where the business can improve its profitability. By following the steps outlined in this document, entrepreneurs can develop a comprehensive business plan that sets the foundation for a successful and sustainable business.

dalam penanganan rhinitis alergi berdasarkan jumlah eosinofil dalam apusan mukosa hidung.

## **B. Rumusan Masalah**

Berdasarkan latar belakang yang dikemukakan dalam pendahuluan, maka dapat dirumuskan masalah :

Apakah dengan pemberian probiotik dapat menurunkan jumlah eosinofil dari apusan hidung pada penderita Rinitis Alergi?

## **C. Tujuan Penelitian**

Mengetahui apakah pemberian probiotik dapat menurunkan kadar jumlah eosinofil pada penderita Rinitis Alergi

## **D. Manfaat Penelitian**

Penelitian ini diharapkan dapat bermanfaat bagi :

### **1. Peneliti**

Penelitian ini diharapkan dapat memberikan masukan guna menambah bekal ilmu pengetahuan yang diperoleh peneliti dari perkuliahan.

### **2. Masyarakat**

Penelitian ini diharapkan dapat memberikan manfaat probiotik terutama bagi masyarakat dalam mengatasi Rinitis Alergi

### **3. Klinik**

Penelitian ini diharapkan dapat menjadikan probiotik sebagai pengobatan alternatif dalam mengobati Rinitis Alergi

1. The first part of the document discusses the importance of maintaining accurate records of all transactions.

2. It is essential to ensure that all entries are supported by appropriate evidence and documentation.

3. The second part of the document outlines the various methods used to collect and analyze data.

4. These methods include both qualitative and quantitative approaches, each with its own strengths and limitations.

5. The third part of the document provides a detailed overview of the theoretical framework underlying the research.

6. This framework is based on a combination of established theories and emerging concepts in the field.

7. The fourth part of the document describes the specific research design and methodology employed in the study.

8. This includes a discussion of the sample selection process, data collection procedures, and analysis techniques.

9. The fifth part of the document presents the results of the study, along with a discussion of their implications.

10. The findings suggest that there are significant differences in the behavior of the two groups being compared.

11. These differences are attributed to a variety of factors, including individual characteristics and environmental influences.

12. The sixth part of the document discusses the limitations of the study and suggests areas for future research.

13. It is noted that the study was limited to a specific population and time period, which may affect the generalizability of the findings.

14. Future research should aim to address these limitations and explore the underlying mechanisms of the observed effects.

15. The seventh part of the document provides a conclusion and summarizes the main findings of the study.

16. The authors conclude that the study has provided valuable insights into the relationship between the variables under investigation.

17. The findings have important implications for both theory and practice in the field.

18. The authors express their appreciation to the funding agencies and the research assistants who assisted in the study.

19. Finally, the authors provide contact information for those interested in further details or requests for reprints.

20. The document concludes with a list of references and a table of contents.

## E. Keaslian Penelitian

Penelitian hampir serupa pernah dilakukan pernah dilakukan oleh Zacharasiewicz A et al, 2006 dengan judul **“Effects of a reversible beta-tryptase and trypsin inhibitor (RWJ – 58643) on nasal allergic responses”** dengan metode penelitian Randomized Control Trial, dan mengambil populasi sampel dari Houston, Texas. Pengukuran dalam penelitian ini adalah seberapa efektif obat – obatan beta tryptase dan trypsin inhibitor terhadap kadar eosinofil pada apusan mukosa hidung dan angka kejadian munculnya gejala **nasal allergic**. Dalam pembagian sampel, penelitian ini membagi menjadi dua yaitu kelompok yang diberi obat – obatan beta tryptase dan trypsin inhibitor dengan kelompok yang diberi placebo.

Perbedaan dengan penelitian yang akan dilakukan dengan penelitian yang sudah disebutkan diatas adalah dilakukan secara Randomized Control Trial dengan tempat penelitian di Yogyakarta, dan pengukuran yang dilakukan adalah pengukuran kadar eosinofil pada apusan mukosa hidung dan angka kejadian munculnya **nasal**

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the success of any business and for the protection of the interests of all parties involved. The document outlines the various methods and systems that can be used to ensure the accuracy and reliability of financial records.

The second part of the document provides a detailed overview of the different types of financial statements that are commonly used in business. It explains the purpose and content of each statement, including the balance sheet, income statement, and cash flow statement. The document also discusses the importance of reconciling these statements and ensuring that they are consistent and accurate.

The third part of the document focuses on the role of internal controls in maintaining the integrity of financial records. It describes the various internal control procedures that can be implemented to prevent and detect errors and fraud. The document also discusses the importance of regular audits and the role of external auditors in providing an independent assessment of the accuracy and reliability of financial records.

The fourth part of the document discusses the importance of transparency and disclosure in financial reporting. It explains the various requirements for disclosure and the importance of providing clear and concise information to investors and other stakeholders. The document also discusses the role of regulatory bodies in ensuring that companies comply with these requirements.

The fifth part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the success of any business and for the protection of the interests of all parties involved. The document outlines the various methods and systems that can be used to ensure the accuracy and reliability of financial records.