

**GUDEG INNOVATION FROM PAPAYA FRUIT
(*Carica papaya*) AND FENNEL LEAVES
(*Foeniculum vulgare*) AS AN EFFORT TO REDUCE THE
PREVALENCE OF STUNTING
IN YOGYAKARTA CITY**

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Abstract

This research aims to reveal the effectiveness of the innovation of gudeg from papaya fruits and fennel leaves as a way to prevent stunting. This was analyzed by examining deeper on: (1) The stunting rate in Indonesia by 2024, specifically in Yogyakarta. (2) The beneficial composition of papaya fruits and fennel leaves in the form of gudeg that helps increasing the breast milk production. (3) Conducting an experimentation method to utilize the presence of lactagogum.

Based on the National Medium Term Development Plan (RPJMN) 2020-2024, the government is currently working towards a stunting reduction target of 7.6%, so that the target of 14% stunting by 2024 can be comprehended (Government of the Republic of Indonesia, 2020). The 2021 Indonesian Nutrition Status Survey states that the average prevalence of stunting in various provinces in Indonesia ranges from 14.1% to 20.6%. Meanwhile, in Yogyakarta Province itself, the prevalence of stunting is 17.3%, which is still relatively high. Based on this study, researchers appointed gudeg as a traditional Yogyakarta food that is much sought after by the public as a solution to increase the breast milk productivity of breastfeeding mothers made from papaya fruit (*Carica papaya*) and fennel leaves (*Foeniculum vulgare*).

Through this investigated research, aims to determine the compounds found in gudeg. Extraction of gudeg uses the maceration method with 96% ethanol solvent to obtain the filtrate. The extract obtained was tested qualitatively by testing alkaloids, flavonoids and saponins macuration process was conducted for purposes of making the gudeg in an extraction method, whereafter, qualitative analysis to test out flavonoid, alkaloid and saponin.

The results of this research shows that: (1) The gudeg innovation from papaya fruit and fennel leaves is proven to contain flavonoid and alkaloid compounds. Meanwhile, saponin compounds were not detected in the gudeg samples because the fennel leaves sampled did not meet the level at which saponin could be detected.

Key words : Stunting, Papaya, Fennel leaves, Gudeg, Breastfeeding, lactagogum

1) Introduction

Malnutrition is a global problem, including in Indonesia (Ministry of Health of the Republic of Indonesia, 2018). This is mainly caused by an imbalance in the mother's diet during pregnancy. When a mother loses control in maintaining a healthy pregnancy, that is when the opportunity arises for stunting, resulting in developmental delays in the baby. Based on the investigated research, we utilize gudeg, Yogyakarta cultural most famous historical tourist areas and traditional food as a way to prevent the numbers of stunting rate here in the city of Yogyakarta by innovating the gudeg from papaya and fennel leaves which contains brilliance of nutrition.

2) Method and Experimental Details

In our research, we attempted an experiment to check the attendances of lactagogum which works to increase the formulation of breastmilk found in our gudeg. This was done thoroughly by conducting the extraction of gudeg by the process of maceration and qualitative analysis where we test out the flavonoid, alkaloid and saponin to detect the presence of lactagogum in our gudeg.

Based on the experimentation, flavonoid and alkaloid was detected and showed a (+) result of the experiment, however, saponin showed non

3) Result and Discussion

The gudeg innovation from papaya fruit and fennel leaves has been proven to contain flavonoid and alkaloid compounds. Saponin compounds were not detected in the gudeg samples because the fennel leaves sampled did not meet the levels at which saponins could be detected. Saponin compounds were not detected in the gudeg samples because the fennel leaves sampled did not meet the levels at which saponins could be detected.

4) Conclusion

The alkaloids found in papaya can influence the activity of the prolactin hormone by increasing the production of good breast milk (Yolandyni et al., 2018).

Saponin compound contained in the gudeg cannot resist the high temperature when the gudeg is cooked -> Muflihah (2015), stated that saponins are susceptible to high temperatures. These bioactive compounds can be damaged if heated to high temperatures.

5) Acknowledgements

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**INOVASI GUDEG DARI BUAH PEPAYA
(Carica pepaya) DAN DAUN ADAS
(Foeniculum vulgare) SEBAGAI UPAYA PENURUNAN PREVALENSI
STUNTING DI KOTA YOGYAKARTA**

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Abstrak

Penelitian ini bertujuan untuk mengetahui efektivitas inovasi gudeg dari buah pepaya dan daun adas sebagai salah satu cara mencegah stunting. Hal ini dianalisis dengan mengkaji lebih dalam mengenai: (1) Angka stunting di Indonesia pada tahun 2024, khususnya di Yogyakarta. (2) Komposisi buah pepaya dan daun adas yang bermanfaat dalam bentuk gudeg membantu meningkatkan produksi ASI. (3) Melakukan metode eksperimen untuk memanfaatkan keberadaan laktagogum.

Berdasarkan Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2020-2024, pemerintah saat ini berupaya mencapai target penurunan stunting sebesar 7,6%, sehingga target 14% stunting pada tahun 2024 dapat tercapai (Pemerintah Republik Indonesia, 2020). Survei Status Gizi Indonesia tahun 2021 menyebutkan rata-rata prevalensi stunting di berbagai provinsi di Indonesia berkisar antara 14,1% hingga 20,6%. Sedangkan di Provinsi DIY sendiri, prevalensi stunting sebesar 17,3% masih tergolong tinggi. Berdasarkan penelitian tersebut, peneliti mengangkat gudeg sebagai makanan tradisional Yogyakarta yang banyak dicari masyarakat sebagai solusi peningkatan produktivitas ASI ibu menyusui berbahan dasar buah pepaya (*Carica pepaya*) dan daun adas (*Foeniculum vulgare*).

Melalui penelitian yang diteliti ini, bertujuan untuk mengetahui senyawa-senyawa yang terdapat pada gudeg. Ekstraksi gudeg menggunakan metode maserasi dengan pelarut etanol 96% sehingga diperoleh filtratnya. Ekstrak yang diperoleh diuji secara kualitatif dengan pengujian alkaloid, flavonoid dan saponin. Proses makurasi dilakukan untuk keperluan pembuatan gudeg dengan metode ekstraksi, selanjutnya dilakukan analisis kualitatif untuk menguji kandungan flavonoid, alkaloid dan saponin.

Hasil penelitian menunjukkan bahwa: (1) Inovasi gudeg dari buah pepaya dan daun adas terbukti mengandung senyawa flavonoid dan alkaloid. Sedangkan senyawa saponin tidak terdeteksi pada sampel gudeg karena sampel daun adas yang diambil tidak memenuhi kadar saponin yang dapat dideteksi.

Kata kunci : Stunting, Pepaya, Daun Adas, Gudeg, Menyusui, Laktagogum

1) Introduction

Gizi merupakan masalah global, termasuk di Indonesia (Kementerian Kesehatan Republik Indonesia, 2018). Hal ini terutama disebabkan oleh ketidakseimbangan pola makan ibu selama hamil. Ketika seorang ibu kehilangan kendali dalam menjaga kesehatan kehamilannya, maka saat itulah muncul peluang terjadinya stunting sehingga mengakibatkan keterlambatan tumbuh kembang pada bayinya. Berdasarkan penelitian yang diteliti, kami memanfaatkan gudeg, kawasan wisata sejarah dan makanan tradisional Yogyakarta yang paling terkenal sebagai cara untuk mencegah angka stunting di kota Yogyakarta dengan menginovasi gudeg dari daun pepaya dan adas yang mengandung nutrisi cemerlang.

2) Method dan Experimental Details

Dalam penelitian ini, kami mencoba melakukan eksperimen untuk memeriksa kandungan laktagogum yang berfungsi meningkatkan formulasi ASI yang terdapat dalam gudeg kami. Hal ini dilakukan secara menyeluruh dengan melakukan ekstraksi gudeg melalui proses maserasi dan analisis kualitatif dimana kami menguji kandungan flavonoid, alkaloid dan saponin untuk mendeteksi keberadaan laktagogum dalam gudeg kami.

Berdasarkan percobaan terdeteksi flavonoid dan alkaloid dan menunjukkan hasil percobaan (+), namun saponin menunjukkan (-)

2) Hasil dan Diskusi

Inovasi gudeg dari buah pepaya dan daun adas terbukti mengandung senyawa flavonoid dan alkaloid. Senyawa saponin tidak terdeteksi pada sampel gudeg karena sampel daun adas tidak memenuhi kadar saponin yang dapat dideteksi. Senyawa saponin tidak terdeteksi pada sampel gudeg karena sampel daun adas tidak memenuhi kadar saponin yang dapat dideteksi.

3) Kesimpulan

Alkaloid yang terdapat pada pepaya dapat mempengaruhi aktivitas hormon prolaktin dengan meningkatkan produksi ASI yang baik (Yolandyni et al., 2018).

Senyawa saponin yang terkandung dalam gudeg tidak dapat menahan suhu tinggi pada saat gudeg dimasak -> Muflihah (2015), menyatakan bahwa saponin rentan terhadap suhu tinggi. Senyawa bioaktif tersebut dapat rusak jika dipanaskan pada suhu tinggi.

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The gudeg innovation from papaya fruit and fennel leaves has been proven to contain flavonoid and alkaloid compounds. Saponin compounds were not detected in the gudeg samples because the fennel leaves sampled did not meet the levels at which saponins could be detected. Saponin compounds were not detected in the gudeg samples because the fennel leaves sampled did not meet the levels at which saponins could be detected.